QUEENSLAND.

ANNUAL REPORT

OF THE

SUB-DEPARTMENT OF FORESTRY

FOR THE

YEAR 1953-54.

CONTENTS.

TABLE OF APPENDICES.

HARDWOOD FOREST RE-ACQUIRED BY THE CROWN.

If the needs of the State are to be permanently met, good hardwood forests, previously alienated, must be re-acquired.

In the past ten years approx. 150,000 acres have been purchased, to be placed under permanent forest management.

Report of the Director of Forests for the Year ended 30th June, 1954.

INTRODUCTION.

Timber is one of the major raw materials of industry. Every industry is dependent on it, to a greater or lesser extent, for successful functioning. Ready supply of timber is an important factor in the State's economy. The timber industry itself is one of considerable magnitude, employing many thousands of men in logging, milling and general forestry operations.

In the year 1951–52 the value of production of the industry was estimated at —

	£
(*a*) Sawmill Production	11,000,000 (approx.)
(*b*) Plywood and Veneer Mills	3,000,000 (approx.)
(*c*) Round and Squared Timber	2,000,000 (approx.)
Total	16,000,000

Queensland has been extremely fortunate in that it possesses timbers of outstanding quality for all uses :—

(*a*) Softwoods.—There are no better quality timbers anywhere than our hoop, bunya and kauri pines.

(*b*) Structural Hardwoods.—Australia is specially favoured in the outstanding quality of its Eucalyptian hardwoods, and Queensland has practically all the Australian species which are listed in the highest grade for both strength and durability.

(*c*) Cabinetwoods.—The superlative quality of our maple, walnut, oak, silver ash and other species is well known.

In the past, Queensland has supplied its own timber needs. At times small quantities have been imported from overseas for special purposes, and supplies of hardwood from Northern New South Wales are used in South Queensland, but, on the other hand, appreciable quantities of cabinet timbers and cypress pine go to Southern States.

The movement in the overall log cut by Queensland sawmills and plymills from 1936–37 to 1952–53 (excluding logs sawn into railway sleepers) is shown in Graph I (facing page 4). The quantity cut from Crown lands and private lands, respectively, is also shown.

It will be noted that, for the ten-year period 1936–37 to 1945–46, the total annual cut averaged about 300,000,000 super. feet, of which 200,000,000 super. feet came from Crown lands and 100,000,000 super. feet from private lands. During the war every endeavour was made to increase the output to assist in the war effort, and this was effective until 1942–43, when the shortage of manpower and plant had a marked effect, continuing until the end of the war. As a result of the pressing demand for timber in the post-war period, the average annual cut (from 1946–47 to 1952–53 inclusive) increased by 90,000,000 super. feet, about 81,000,000 super. feet per year from private lands and 9,000,000 super. feet from Crown lands. Actually the private land output exceeded the cut from Crown land in 1950–51 and in 1952–53.

A study of Graph II is illuminating as it shows the total mill log consumption (excluding hardwood cut for sleepers) by classes of timber.

The dominant feature of this graph is the spectacular increase in hardwood cut, largely to meet the post-war building demand but also to replace pine for many of its former uses as the declining cut of hoop pine meant shortages of that timber. There has also been a considerable increase in the cut of cypress pine and miscellaneous species. Cabinetwoods have remained stationary, whilst pine plantation thinnings have made an appearance.

The changing cut is further illustrated in the following table, which lists the average annual cut for the three pre-war years (1936–37 to 1938–39) and for the three-year period 1950–51 to 1952–53.

AVERAGE ANNUAL CUT OF LOGS BY SAWMILLS AND PLYMILLS (MILLION SUPER. FEET).

Class of Timber.	Three Pre-War Years, 1936–37 to 1938–39.	Three Years, 1950–51 to 1952–53.	Movement.
Pine (Hoop, Bunya, Kauri)	143	62	− 81
Plantation Thinnings	..	11	+ 11
Hardwood Species (excluding Sleepers)	94	229	+ 135
Cypress Pine	13	45	+ 32
Cabinetwoods	20	23	+ 3
Miscellaneous Species	11	51	+ 40
Total	281	421	+ 140

The quantities of the various types of timber produced from Crown lands and private lands are shown in Graphs III and IV respectively.

The most striking features of these graphs are the sharp and sustained increase in the cut of hardwood from private timber land, and the large reduction in the output of pine from Crown land. There has been a continued increase in the hardwood production from Crown land, but it should be noted that the private land cut of hardwood represented 71 per cent. of the total hardwood cut in the pre-war three years, and it was still 68 per cent. during the last three years.

The following tables show the movement in types of timber cut from Crown and private land from the pre-war three years to the three years ended 30th June, 1953.

AVERAGE ANNUAL CUT OF MILL LOGS (MILLION SUPER. FEET) FROM CROWN AND PRIVATE LANDS.

Class of Timber.	Three Pre-War Years (1936–37 to 1938–39).		Three Years (1950–51 to 1952–53).		Movement.	
	Crown.	Private.	Crown.	Private.	Crown.	Private.
Pine (Hoop, Bunya, Kauri)	132	11	61	1	— 71	— 10
Plantation Thinnings	..	..	11	..	+ 11	..
Hardwood Species	27	67	74	156	+ 47	+ 89
Cypress Pine	5	8	22	22	+ 17	+ 14
Cabinetwoods	14	6	17	6	+ 3	..
Miscellaneous Species	3	8	25	26	+ 22	+ 18
Total	181	100	210	211	+ 29	+ 111

The table below shows the average cut of logs in million super. feet by mills in the various statistical divisions (*see* map facing page 6) and percentage of total, together with the population in each division and percentage thereof.

Statistical Division.	Average Annual Log Cut for 3 years Ending 30–6–53 (Includes Hardwood into Sleepers).	Percentage of Total.	Population.	Percentage of Total.
	Million sup. ft.			
Moreton	158·3	34·8	608,200	50·4
Maryborough	90·4	19·9	120,400	10·0
Downs	67·7	14·9	125,000	10·3
Roma	9·2	2·0	16,300	1·3
South-Western	·1	..	12,000	1·0
Total, South Queensland	325·7	71·6	882,000	73·0
Rockhampton	16·0	3·5	85,100	7·1
Central West	8·4	1·8	21·800	1·8
Far West	..	..	5,000	·4
Total, Central Queensland	24·4	5·3	112,000	9·3
Mackay	9·2	2·0	40,600	3·4
Townsville	11·5	2·5	70,900	5·9
Cairns	82·7	18·1	79,300	6·6
Peninsula	·6	·1	5,000	·4
North-West	·5	·1	17,500	1·4
Total, North Queensland	104·5	23·0	213,000	17·7
Total Queensland	454·6	100·0	1,207,000	100·0

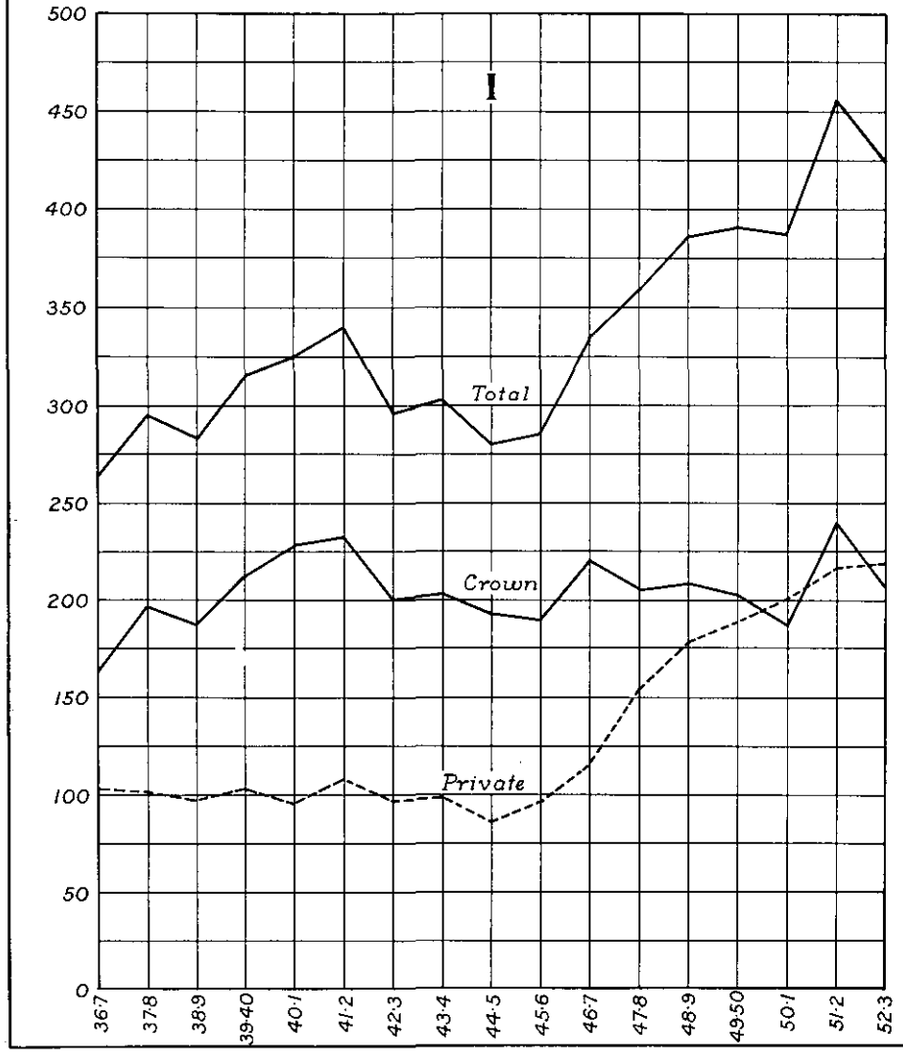
It will be seen that 70 per cent. of the logs milled in the State were cut in the south-east corner of the State in the divisions of Moreton, Maryborough and Downs, whilst another 18 per cent. were milled in Cairns. Thus some 88 per cent. of total quantity of logs milled comes from 12 per cent. of the area of the State.

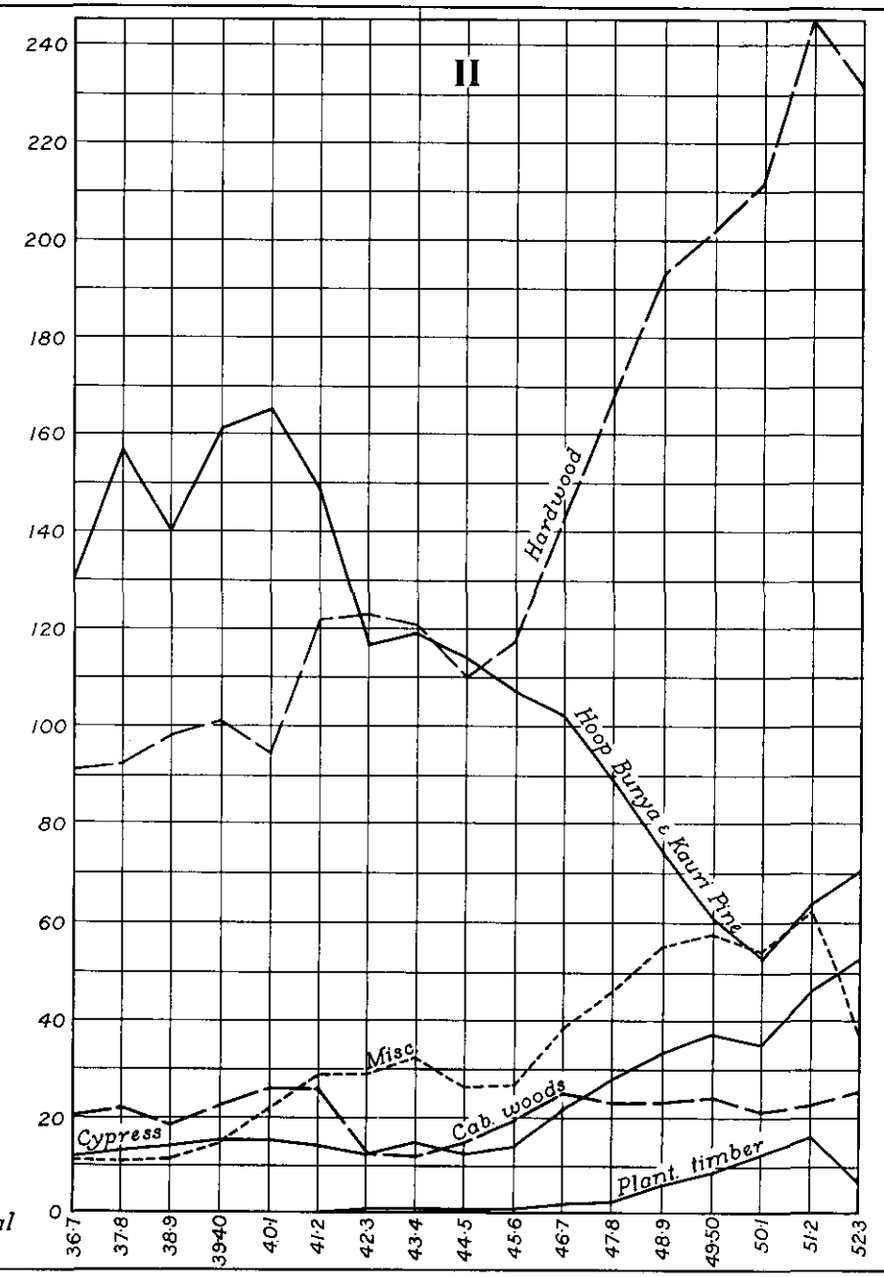
Timber is very costly to transport, and transport costs represent a considerable portion of price of sawn timber to the consumer. If timber is to be made available to the user at reasonable prices, it must be grown and milled as close as possible to the consuming centre. Timber consumption is roughly proportional to population, but in areas where primary and secondary industries are developing rapidly the consumption per capita will be greater than average.

From the above table it will be seen that the mills in the Moreton Division, including Brisbane, and the Rockhampton, Mackay and Townsville divisions, are unable to supply their local requirements.

Moreton receives some supplies from the Maryborough division at added cost, and from Northern New South Wales, whilst quantities of high quality timber are obtained from the Cairns division. Maryborough and Cairns also contribute timber to assist in the serious shortages in the Rockhampton, Mackay and Townsville divisions.

GRAPHS SHOWING MILL LOGS
CUT FROM PRIVATE & CROWN LANDS
EXCLUDING HARDWOOD INTO SLEEPERS





In addition to the timber used as mill logs, very large quantities of durable hardwood species are used in the round, as piles, poles, girders, houseblocks etc., and hewn or sawn into sleepers, transoms and bridge timbers. For the year 1952–53 the estimated log volume obtained from Crown lands and converted into these materials was 64,000,000 super. feet, as compared with a hardwood mill log cut of 72,000,000 super. feet. Considerable quantities of similar material are obtained from private land, but probably less than half the quantity obtained from Crown lands.

The most important points disclosed from a survey of the position are —

(1) The greatly increased cut of mill timber to meet the post-war demand.

(2) Most of this increase has come from private land, the output from these areas being now equal to the cut from Crown land.

(3) The spectacular increase in the production of hardwood from private land, and the very marked reduction in the cut of pine from Crown lands.

(4) The timbered areas of any consequence are confined to a small area in south-east Queensland and to the Cairns division.

Future Prospects.—Queensland is poorly timbered. As mentioned above, the State possesses a remarkable variety of timbers of outstanding quality for all purposes, but unfortunately has very small quantities of the various classes of timber.

Timber is one natural resource that is renewable. Timber is a crop and forests can and should be managed as tree farms. The growing stock (wood capital) must be rebuilt to a stage where the annual growth or increment (interest) will meet the State's timber requirements. Under proper management, after the removal of the mature stand, the new forest is regenerated, either naturally by seed fall from reserved seed trees or artificially by planting. Artificial regeneration is adopted only if regeneration by natural means is impracticable. In an old over-mature forest, increment is negligible as growth and loss by death balance. Consequently, in such a stand, logging is essential before regeneration and effective increment are obtained. Many years are required to build up a vigorous growing stock, and although a considerable annual wood increment is obtained, it does not become marketable until the trees are of sufficient size for economic use.

All evidence points to the fact that our timber needs will not diminish but, rather, with increasing population and industrialisation, the per capita demand and total consumption will increase. Australia has imported huge quantities of timber and other forest products (i.e. pulp and paper) over the past fifty years at tremendous costs, but Australia can grow the whole of her requirements.

Let us now look at the future prospects of supply of each of the main types of timber in Queensland—the most important being hardwood and pine.

Hardwood.—Queensland never did possess hardwood forests comparable in volume per acre with those of the other States, except South Australia which virtually had no forest. Our heaviest stands were far below the volume of the best stands in other States, and our best stands were very limited in area. The quality of the wood of our best species is superior to that found elsewhere in Australia, except in Northern New South Wales. Our logs are more defective and the trees, generally, are slower in growth. The remaining hardwood resource in this State is well below that of the other States, except South Australia. Queensland has not possessed any concentration of volume of hardwood to be of interest for chemical utilisation for manufacture into pulp, paper &c. One newsprint mill in Tasmania should soon be using more hardwood logs each year than the total of hardwood mill logs cut annually from Crown lands in Queensland.

Unfortunately, much of the best hardwood forest land in Queensland has been alienated in years past. More than two-thirds of the hardwood mill logs still come from private forest land.

The extent to which this private land hardwood cut can be maintained obviously has an important bearing on the State's ability to continue to supply its timber needs. A very small proportion of private forest lands is being managed for the sustained maximum production of hardwood. Much of the land is subject to continual burning, and much of it is being ringbarked or cleared for other forms of land use. Large areas are being destructively logged to very small sizes, thus eliminating most trees that should be retained as growing capital.

Take the case of the Moreton division. For the two years 1951–52 and 1952–53, the mills in this area have cut each year 114,000,000 super. feet of hardwood, of which 92,000,000 super. feet came from private lands and 22,000,000 super. feet from Crown lands. With the heavy, indiscriminate logging that is proceeding on private land, the cut cannot be maintained, and there must be a very large reduction in the near future. The same condition exists in other divisions, but to a lesser degree. It is reasonable to assume that the annual cut from private land will fall by, at least, 50,000,000 super. feet by the end of ten years.

In the case of Crown lands every endeavour is being made to maintain the cut, which in 1952–53 was 72,000,000 super. feet of mill logs and 64,000,000 super. feet used for squared, round and split timber and sawn sleepers.

On State Forests, which are the only areas permanently reserved for the production of timber, large areas have been brought within fire protection systems. All timber, including defective trees, is being intensively utilised, and large areas have been given natural regeneration and improvement treatment, with the object of stimulating growth and of fully regenerating every acre with good trees of good species. This treatment has been applied to 319,000 acres.

Very good results have been achieved, but whilst excellent young forests have been, and are being, regenerated, it will require quite a period of years before the present annual wood increment becomes fully marketable. The hardwood logs, which the industry will mill over the next thirty years, are already on the ground in the form of saplings, poles or larger trees and nothing can be done to increase the number of available logs over that period, but much can be done to preserve them from destruction by ringbarking axe and fire, and to stimulate their growth by treatment. An increased cut of hardwood from Crown lands cannot be expected until the results of treatment become effective.

Unfortunately there are only limited areas of good quality forest within State Forests. They contain large areas of waste land and large areas of hardwood forest with low growth capacity. Work is being concentrated upon the best areas with highest growth potential. This work must be accelerated, with the object of giving protection and silvicultural treatment to 1,000,000 acres of hardwood forest as soon as possible.

Pine.—Originally Queensland had an extensive stand of high quality softwood (hoop, bunya and kauri pine). No other State had any native softwoods of any consequence, although the hoop pine area did extend into northern New South Wales. Most of the best pine in Queensland was alienated in the early days and much was destroyed in the process of clearing for settlement. Until 25 years ago the bulk of the timber milled in Queensland was pine from private land. With the cutting out of the private supplies, practically all the pine cut in recent years has come from Crown lands. The present annual cut of 60,000,000 super. feet is down 100,000,000 super. feet on what it was twelve years ago, and in five years' time it will be a negligible quantity.

It would have been a sound procedure to have regulated the cut over the last twenty years at a lower cut per annum. This would have given the virgin pine a longer life. However, three major crises in succession militated against such action. Following the pit of the depression the pine forests were used to aid economic recovery by subsidised export to Southern States. Then followed the war with its urgent demand for timber, and finally the housing demand, when pine was utilised to the utmost. These Crown forests have been "mined." It was not a practicable project to naturally regenerate these forests and work them on a sustained yield.

However, hoop pine is not only a high quality softwood, it also grows rapidly. Our softwood resource can be built up again and sustained on a permanent basis as opposed to the "cut and get out" policy of the past.

To achieve this, a minimum of 200,000 acres of softwood must be established at the earliest. To date, some 59,000 acres have been planted, but at the present rate of planting (about 5,000 acres per annum) it will take nearly 30 years to achieve this objective.

About two-thirds of the area has been planted with local species (mainly hoop pine, with some kauri, bunya and maple), and the balance with imported pines. The latter have been used because there is inadequate area suitable for planting with local species within present State Forests.

Useful material is produced from softwood plantations at a very early age. First thinning has commenced as early as ten years and should be carried out at not later than 15 years. Another three or four thinnings are made at regular intervals before the best trees are allowed to grow on to form the final crop of high quality timber, to be felled at about 50 years of age for hoop pine and 40 years for exotics.

Already, these young plantations have produced over 69,000,000 super. feet of timber and allowable cut at present is 16,000,000 super. feet per year. This will continually increase, and if the present rate of 5,000 acres of plantation per annum is maintained, the estimated annual production of logs from plantation should increase as follows:—

	Sup. ft.
1955	16,000,000
1960	25,000,000
1965	50,000,000
1970	80,000,000
1975	120,000,000

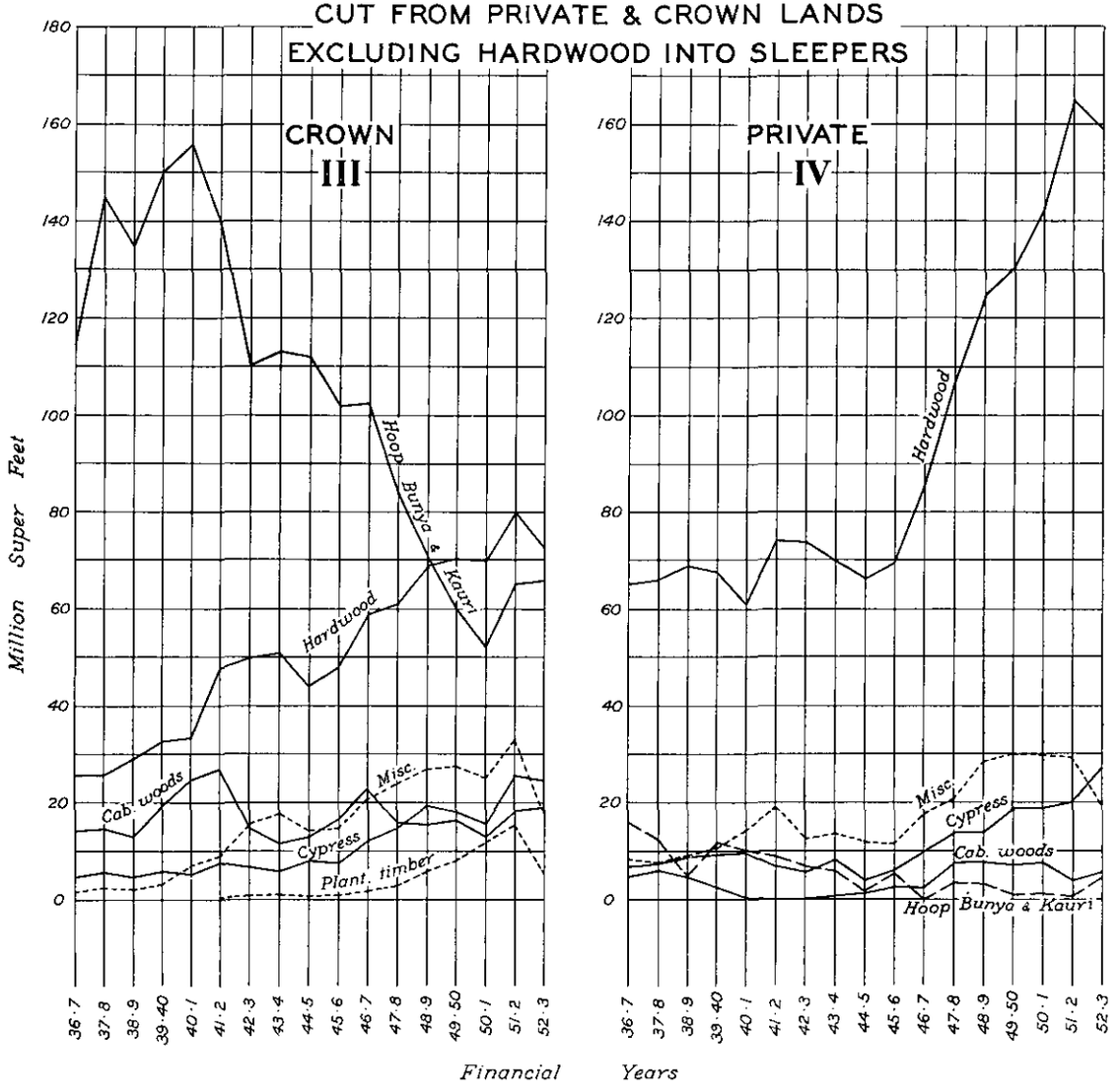
There is no quicker way of producing additional quantities of useful timber than by establishing plantations of fast-growing species of pine.

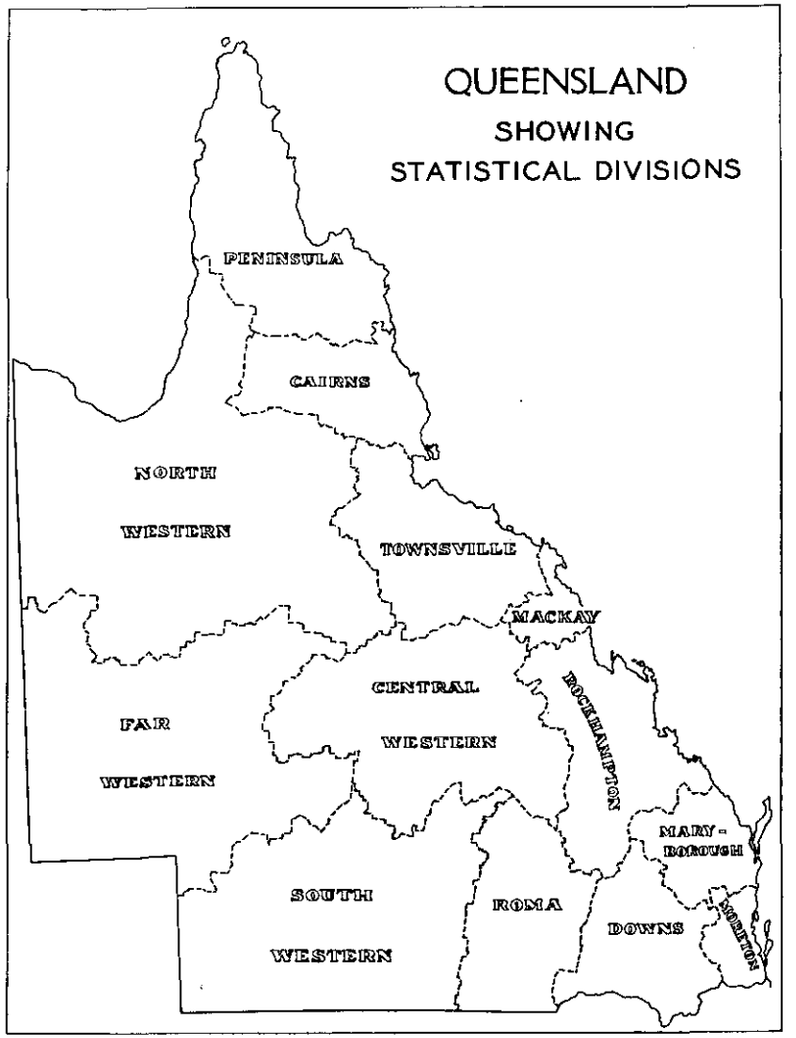
An increased annual rate of planting would naturally reduce the time required to make the State again self-sufficient in its softwood requirements.

Cypress Pine.—When given complete protection from fire, rarely is difficulty experienced in obtaining satisfactory natural regeneration. On State Forests, which have received protective and improvement treatment, the present cut should be maintained, and increased with succeeding cutting cycles. The same cannot be said for other Crown lands, which are subject to periodic burnings. It is unlikely that the present output from private land can be maintained.

To date 201,000 acres of State Forests have been given improvement and regeneration treatment. It is highly desirable to increase this area to 750,000 acres at the earliest, in an endeavour to sustain and ultimately increase the present overall cut of cypress pine.

GRAPHS SHOWING MILL LOGS CUT FROM PRIVATE & CROWN LANDS EXCLUDING HARDWOOD INTO SLEEPERS





Cabinetwoods and Miscellaneous Species.—North Queensland forests produce the great bulk of timber which falls into these categories. Most of the valuable species come from Crown lands, although considerable quantities of timber are still obtained from alienated land. The area at present permanently reserved for timber production is inadequate for the continued support of the North Queensland Timber Industry, but it is not too late to take action aiming at the reservation of adequate area. Recent research has determined a natural regeneration technique, and action is now being taken to apply this in practice to the maximum extent. It has been calculated that if a net area of 200,000 acres of prime rain forest, reasonably accessible to market, be permanently reserved and given prompt and adequate silvicultural treatment, the present level of production by the North Queensland Timber Industry could be maintained.

In Brief.—Queensland faces the prospect of serious timber shortages during the next two decades, because—

(*a*) the present cut from private land cannot be maintained ;

(*b*) the output of virgin pine from Crown land will fall by 50,000,000 super. feet per year within a short period of years ;

(c) the overall cut of timber from Crown lands cannot be increased on a sustained basis for a number of years.

However, vigorous action to properly manage our forest resources can reduce this period of shortage. The action necessary is —

(i) continuation of the pine planting programme of at least 5,000 acres per annum until a minimum of 200,000 acres has been established ;

(ii) acceleration of protection and natural regeneration work in hardwood and cypress pine areas, with the object of increasing the area so treated from 520,000 acres to 1,750,000 acres at the earliest ;

(iii) permanent reservation and natural regeneration treatment of 200,000 acres (net) of good quality rain forest in North Queensland within reasonable access to market ;

(iv) provision of advice and assistance to owners of private forest land with the object of obtaining maximum growth therefrom ;

(v) more active application of the policy of acquisition of good quality private forest land, the best use of which is the growing of timber and which is not being managed for timber production.

REFORESTATION.

From the end of April, 1953, no useful rain fell until late August in the coastal areas and even later in certain inland areas. As a result the winter planting of exotic conifers was very much delayed and was not completed until early October on the coast. At Passchendaele all areas were planted—planting extending into October, but at Pechey it was necessary to leave areas unplanted.

The delay in planting rendered it necessary, in the coastal areas, to lift and heel in the planting stock so that beds could be prepared for the mid-July sowing of seed.

It is probably this factor, plus the favourable weather conditions experienced following planting, that ensured the good survival obtained. At Passchendaele the stock was not lifted and heeled in and the conditions following planting were not good. At this centre heavy losses were experienced not only in new plantings but also in plantings of up to three years of age.

Planting conditions for Hoop Pine were exceptionally good and beneficial rains in May and June, 1954, enabled an early start to be made with the 1954 winter planting of exotic conifers.

During the period 19th to 21st February, 1954, torrential rain and winds of cyclonic force were experienced along the coastal strip from Bundaberg southwards to the border. Rainfall at Beerwah for these three days totalled 632 points, with a total of over 24 inches for the whole month. The water-sodden nature of the ground, plus the heavy winds, was responsible for heavy wind-throw damage in all age plantations. Damage to merchantable stands was estimated at 1½ million superficial feet and the logging of the timber is still in progress. At the large coastal exotic centres, namely Tuan, Beerwah and Beerburrum, considerable expenditure was incurred in straightening and firming wind damaged stems in plantations of up to four years of age. In stands of four and five years of age an unmerchantable thinning was first carried out and the remaining stems then straightened and firmed.

Considerable damage was also done to natural stands of Eucalypts within the same belt and on the Blackall Range an estimate places the volume of wind damaged timber at eight million superficial feet. Salvage operations are still in progress.

The following table gives details of the reforestation work accomplished during the year :—

	Acres. 1952–53.	Acres. 1953–54.
Area of natural forest treated	33,861	25,921
Area of plantations established	4,648	5,092
Area covered in pruning	10,919	7,980
Area tended	39,351	33,471
Area thinned merchantably	..	1,808
Area thinned unmerchantably	..	1,683

Overall there is some slight decrease in the amount of work carried out due, principally, to a reduction in the number of wages staff necessitated by lower allocation of funds.

During the year the demand for plantation thinnings increased and by the 30th June the rate of cut had practically returned to normal, with removals as follows :—

	1952–53. Sup. Ft.	1953–54. Sup. Ft.
Native Conifers	3,650,353	7,346,927
Exotic Conifers	1,464,350	4,098,780
Other Species	6,096	9,515
	5,120,799	11,455,222

Two further sales of Hoop Pine thinnings were made at auction for new areas of plantations at Reserve 242, Widgee, near Gympie, and Reserve 97, New Cannindah, on the Boyne Valley Line. It is expected that operations under these sales will commence in 1955.

The type of unmerchantable thinning referred to in last year's report has been continued and for the report period some 1,683 acres of exotic conifer plantations were so thinned.

Plantations.—Appendix (I.) shows, by districts and species, the areas planted from 1st April, 1953, to 31st March, 1954. The total area planted for the year was 5,091·6 acres made up as follows :—

	Acres.
Native Conifers (chiefly Hoop Pine)	1,314·6
Exotic Conifers (mainly Slash Pine, Loblolly Pine, *P. patula* and *P. radiata*)	3,761·5
Broadleaved species	13·0
Eucalypts	2·5
	5,091·6

During the five-year period 1949–50 to 1953–54 the area planted was 24,204·8 acres and the total area of effective plantation is now 62,253·7 acres.

Rat damage is still in evidence on Hoop Pine plantations in the Brisbane Valley and Goomeri districts and the Department of Agriculture and Stock has made available an officer, for a period of at least three months, to investigate the problem. In the two districts mentioned weekly patrols were instituted in March, 1954, and, as a result of these patrols, it was possible to commence baiting as soon as damage was noted. The laying of baits commenced in April and is still in progress. Arrangements have been made to secure supplies of " 1080," an improved type of rat poison, and it is hoped that the use of the poison will be more effective than baits of thallium sulphate.

Apart from Passchendaele, practically no refilling was called for in the newly established plantations of exotic conifers and similar remarks apply to the Hoop Pine area—first-year areas are usually free from rat damage.

The areas covered by tending and pruning show a decrease on last year's figures but all necessary tendings have been carried out and the pruning position is much improved.

Altogether 33,471 acres of plantation were tended for weed growth and details of the area pruned are as follows :—

	Acres.
First operation	786
Second operation	1,321
Third operation	1,839
Final operation	2,645
Combined second and third operations	131
Combined third and fourth operations	1,258
	7,980

In addition 584 acres were covered for the removal of epicormic shoots.

Removals of thinnings increased during the year, removals totalling 11,455,222 superficial feet, bringing the total cut from plantations to 69,062,536 superficial feet.

Nurseries.—The number of nurseries in production at the end of the year was 28, a drop of one since last year—the nursery at Reserve 151 having gone out of production. The high shade nursery at Reserve 67, Bulburin, was extended by one-fifth of an acre to add 40 acres to its capacity and an additional 70 feet by 30 feet bed was added to the nursery at Reserve 20, Maryvale, to increase its capacity by 28 acres.

The number of plants on hand at 30th June totalled 6,068,750, whilst during the year 3,371,000 plants were despatched to plantations and a further 303,300 plants were supplied to the public and to school forest plots.

The quality of exotic planting stock was good, although severe wind and sand blast damage occurred at the Tuan Nursery in August, 1953.

The quality of the Hoop Pine stock at all centres is now good and correct nursery practice should maintain this condition.

Regeneration Treatment of Natural Forest.—During the year an area of 25,921 acres of forest was accorded silvicultural treatment and this represents a drop of 7,940 acres on last year's figures—largely brought about by a reduction in wages staff.

Details are :—

	Acres.
Hardwoods	14,611
Cypress Pine	10,919
Tropical rain forest	391
	25,921

The 391 acres shown for tropical rain forest does not represent 391 acres of complete treatment. Treatment consists of a number of operations, e.g., brushing, ringbarking and poisoning, tending, interplanting, &c., and for the acreage shown some 300 acres have received a partial first tending and 91 acres a complete second treatment.

Treatment work on the western Eucalypt areas has been restricted until such time as an effective and economical method of eliminating heavy coppice growth of *Eucalyptus crebra* has been found. This species, when cut down or ringbarked, produces a heavy crop of coppice and competition from these coppice shoots can be more intense than from the original stem.

The cyclone of last February did a considerable amount of damage to the green firebreak system on the affected reserves and from the date of the cyclone until the end of the financial year all labour on these reserves has been employed restoring the breaks to some semblance of order. This has resulted in a reduction of the area treated.

Seed Collection.—(1) *Araucaria Cunninghamii.*—During December, 1953, a large collection was made of Hoop Pine seed to replenish stocks and to replace any seed of poor quality from the 1950 collection still remaining in cold storage.

To this end a total of 129,154 lb. green weight of cones was collected—this comprised 107,658 lb. from naturally occurring scrub trees and 21,496 lb. from Departmental plantations. From these cones was obtained 67,433 lb. dry weight of seed, comprising 57,191 lb. (53·2 per cent. recovery) from scrub collections and 10,242 lb. (47·6 per cent. recovery) from plantation cones.

The cone crop was not consistently heavy in all areas and some districts were unable to collect more than a small amount of scrub seed. It was, therefore, necessary to collect more seed than was originally intended from certain of the older plantation areas which had borne a good crop of pollen in 1951 and which were carrying a promising crop of cones. This is the first occasion on which Departmental plantations of Hoop Pine have yielded an appreciable quantity of seed of reasonable quality. It is hoped that they will soon be able to replace the fast disappearing virgin trees as the principal source of seed of this species.

Collection, drying and bagging of the seed cost an average of 1s. 5d. per pound dry weight for scrub seed and 9d. per pound for plantation seed.

Laboratory tests on the seed have given the following results :—

Scrub Seed—	Per Cent.	Lb.
Laboratory germinative capacity	40 plus	35,741
Laboratory germinative capacity	30–40	15,473
Laboratory germinative capacity	20–30	3,030
Laboratory germinative capacity	20	2,947
		57,191

Plantation Seed—	Per Cent.	Lb.
Laboratory germinative capacity	25–30	6,669
Laboratory germinative capacity	20–25	1,736
Laboratory germinative capacity	20	1,837
		10,242

The seed has been placed in cold storage in the Department's cold rooms.

(2) *Pinus Species.*—The total quantity of Pinus seed collected during the year from our plantations was 1,083 lb., made up as follows :—

	Lb.	Oz.
Pinus elliottii	903	12
Pinus taeda	50	0
Pinus radiata	71	0
Pinus palustris	50	0
Pinus echinata	7	0
Pinus insularis	1	4

The large collection of Slash Pine was made from a good seed crop and was notable for the fact that it included 159 lb. 13 oz. of seed from selected parents, while the remainder was mainly from stands which had received a second thinning. Some 40 lb. of the select seed was drawn from controlled pollination progeny plots in the oldest of the post-war plantings and further elite trees have been selected in stands of this age class for future collections.

Further thinning has also been carried out around elite trees in the older stands in an effort to promote greater cone development.

Importations of seed were made as follows :—

P. caribaea (Honduras Slash)—30 lb. from British Honduras.

P. merkusii (Tapanula Strain)—12 oz. from Sumatra.

P. tropicalis (Florida Slash)—2 lb. from Florida.

(3) *Eucalyptus Species.*—Increased collections were made of several of the principal commercial eucalypts in an effort to build up some reserve stocks to meet outside orders. There has been a steady demand from overseas for these species. Collections amounted to 65 lb. 13 oz. representing some 17 species. Seed stocks held at 30th June totalled 116 lb.

(4) *Miscellaneous Species.*—In an effort to meet long outstanding orders for seed of *Callitris glauca* a substantial collection was made of this species, 263 lb. of seed being received into store. However, some of this seed was shown to be of low viability when tested in the laboratory.

Seed of numerous species was obtained for production of ornamental, windbreak, shade, and fodder plantings for Departmental and public use. This seed was obtained from Departmental collections as well as from the Brisbane City Council, Forest Services, and through staff of the National Parks, to all of whom we are grateful.

Supply of Trees to the Public.—Sales to the public during the year totalled 303,316 distributed as follows :—

By Species.	
Slash Pine	162,106
P. taeda	19,389
P. patula	12,491
P. radiata	18,649
Hoop Pine	53,994
Miscellaneous	36,687
	303,316

By Purchasers.	
Farmers	247,000
Schools	6,159
Private	44,061
Government Departments	6,096
	303,316

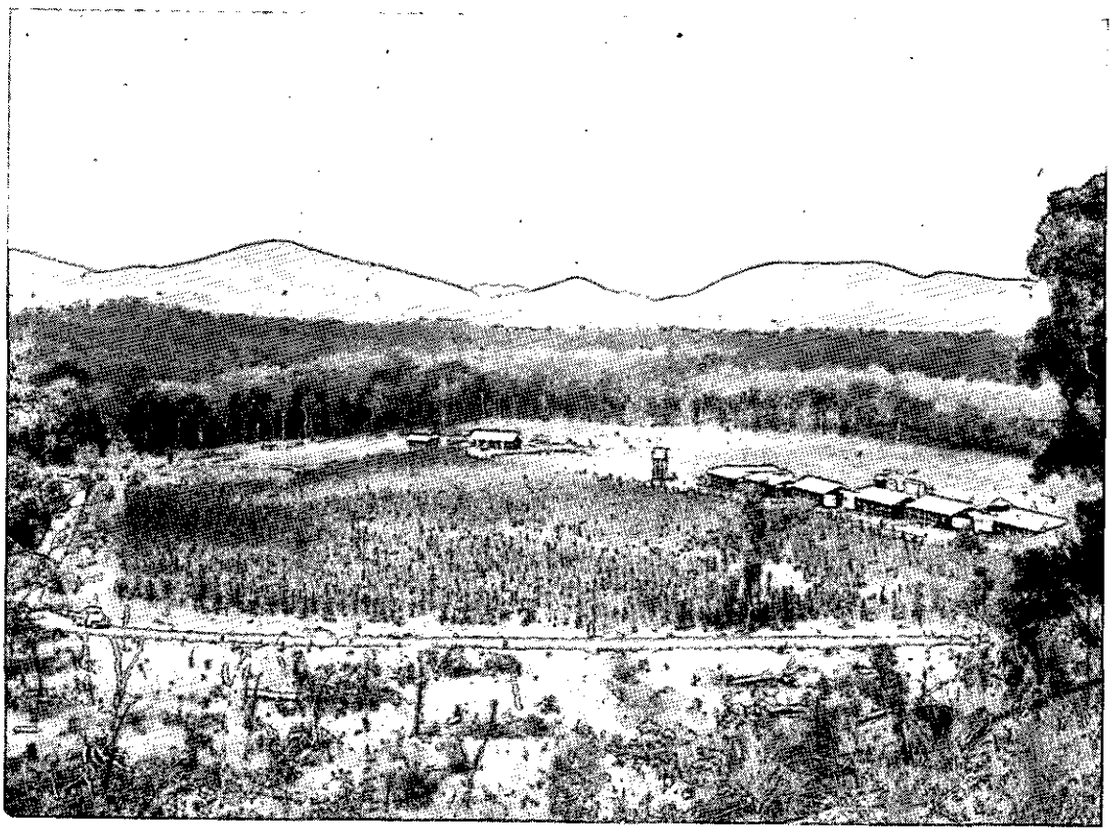
Returns from sales amounted to £2,644 10s. 1d.

Soil and Water Analysis.—The Departmental Analyst, working in the laboratory of the Forests Products Research Branch, carried out 1,390 analyses during the year. The fume system was out of action for a total period of 3½ months and this interfered with the analyst's work to a considerable extent.

Details of the analyses carried out are as follows :—

Water analyses	33
Ph determination	85
P_2O_5 determination—Experimental	98 (40 duplicates)
P_2O_5 determination—Organic and Inorganic Fractionation	12 (all in quadruplicate)
P_2O_5 determination—Routine	1,162
	1,390

The routine P_2O_5 determinations represent approximately 5,800 acres of plantation.



A NEW SOURCE OF FUTURE SOFTWOOD SUPPLIES FOR CENTRAL QUEENSLAND.

Picture shows nursery, forest station and camp at Bowenia, 20 miles north of Yeppoon, where a softwood planting programme of 300 acres per annum is in operation.

DAMAGE CAUSED BY THE FEBRUARY CYCLONE IN SOFTWOOD PLANTATION AT BEERWAH.

Extensive damage was done in State Forests on the coastal area in South East Queensland. About 10,000,000 s. ft. of millable timber was blown down or badly damaged.

Research.—During the year the staff in North Queensland was strengthened by the appointment of a Canberra graduate. This gives a total of 10 University trained officers engaged full time on Silvicultural research. These are located as follows:—North Queensland (3), Mary Valley (1), Beerwah (2), Brisbane (2), Brisbane Valley (1), Dalby (1).

North Queensland.

The series of plots designed to provide basic information on growth in cut over and treated rain forest was extended by the inclusion of three additional areas. This brings the total to 13 localities covered with three plots in each locality. Figures collected from these plots show that in areas afforded no treatment other than commercial logging to girth limits, an average of approximately 220 square feet B.A. is retained, of which only 74 square feet is in stems at present useful and 13 square feet in high quality cabinetwoods. From these figures it is apparent that treatment is essential to increase the representation of the most valuable species. Early indications from these plots are that commercial logging alone does not reduce the stand sufficiently to permit satisfactory growth of the remaining trees, and that response to additional treatment is marked in the smaller size classes but only slight in the larger.

Excellent regeneration of *Flindersia brayleyana* (Maple), *Flindersia pubescens* (Silver Ash) and *Flindersia pimenteliana* (Silkwood) has been recorded, following treatment on areas where suitable seed trees of these species were present. Experiment 92 on R.185 Danbulla involves observations on an area of 1 chain radius around each of five Maple and four Silver Ash seed trees. This area was given intensive treatment in preparation for seedfall and seedlings from the 1952 and 1953 crops, regarded as established, range from 40 to 3,000 per acre. Experiment 143 on R.99 Western covers Maple and Silkwood regeneration from the 1954 seed crop, which is not yet established and is being kept under observation.

Additional treatments have been applied to some plots with the object of assisting establishment.

Inter-plantings of *Cedrela australis* (Red Cedar), Maple, Silver Ash and other cabinet woods, referred to in last year's report, have given satisfactory survival and growth, and this work is being extended.

On the basis of these results, together with the development of plots of Maple and Red Cedar established as underplantings 30 to 40 years ago, preliminary rules have been framed for routine application to selected rain forests which carry a good representation of high quality cabinet woods.

Coastal Central Queensland (Bowenia—23 degrees S. Latitude).

Honduras Slash pine (*P. caribaea*) has shown a consistent advantage in growth over U.S.A. Slash (*P. elliottii var. elliottii*) and its use in routine plantings has been substantially extended at this centre. *P. tropicalis* is making good growth in the arboretum and in trial plots, and warrants further trial. *P. occidentalis* is not promising.

Ploughing experiments on poorly drained types continue to make satisfactory growth. Survival was good in the large scale trial established in 1953, and further experiments of this nature are not proposed until results of those already established are known.

South Queensland.

1. *Tree Breeding* has been continued during the absence, in America, of the Officer in charge of this work. U.S.A. Slash pine is still the species on which most work was done and greatly improved results attended the grafting of that species. Bottle and side veneer grafts, made in April, 1953, in the glass-house with automatic sprinklers, have a 40 per cent. take. The figure for the previous year was 7·8 per cent. Scions were all from elite trees 20 to 25 years old whose progeny have been tested, and the surviving grafts were planted out in the seed garden in winter, 1954.

Observations to determine the effect of spacing on seed production were repeated on Free Growth Experiments with Slash and Loblolly pine. The 1953 crop, mentioned in last year's report, was a poor one, but that of 1954 was heavy. Number of cones produced per tree increased with spacing over the range covered. With Slash pine the range was from 19 per stem at 320 trees per acre to 117 per stem at 57 trees per acre. With Loblolly the range was from 5 per stem at 770 trees per acre to 143 per stem at 51 trees per acre. Maximum cone production per acre with Slash pine was at 80 trees per acre in 1953 and at 180 trees per acre in 1954, and with Loblolly the maximum was at between 110 and 160 trees per acre in each year. 20′ x 20′ (110 stems per acre) spacing has been adopted in the seed garden.

Improved growth of *Agathis robusta* and *A. palmerstoni* (Kauri Pine) in plantations in South Queensland, coupled with the ability of the species to clean itself of branches, has led to work on vegetative reproduction as a fore-runner to a programme for strain improvement. Despite reports that Kauri has established readily as cuttings, monthly trials have given most disappointing results. Some hopeful leads have been obtained, however, and the work will continue.

2. *Exotic Pines.*—At Tuan a further 50 acres in the large scale drainage experiment commenced last year was prepared and planted. This brings the area so far established to 100 acres and the final planting in the experiment will be made next year. Survival and growth in the 1953 planting have been satisfactory and drainage appears to be effective.

Following the small scale experiments with hormone weed killers, referred to last year, a large scale trial was conducted in May, 1954 on Compartment 9 Hussey's Logging Area, Reserve 611 Beerwah, an area of 57 acres. 2, 4, 5–T ester in water at 1·2% acid equivalent was the hormone used and the solution was sprayed, to wet thoroughly the foliage of regrowth after the burn, from knapsack sprays fitted with low volume jets. The average amount of solution applied was 7·9 gallons per acre.

Dissected costs on a per acre basis were :—

	£	s.	d.
Pegging	0	0	11
Access Tracks	0	5	10
Labour	0	19	10
Truck Hire	0	2	1
Materials	1	12	2
	£3	0	10

Pegging and access tracks serve, also, for subsequent planting operations and avoidable difficulties encountered, which increased the labour charge, would indicate that the figure to charge against tending could be reduced to about £2 12s. 0d. per acre, which is about the figure for a routine first tending by brushing. It is apparent, therefore, that initial cost will not rule the treatment out, provided results are satisfactory.

Hormone treatments would appear to have a place in the removal of regrowth from firebreaks and seasonal trials have been initiated, on this aspect, on external firebreaks in the Beerwah area.

Experiments were continued on the use of white spirits as a selective weedicide in the nursery, but results were inconsistent. As a pre-emergent spray its use is established, but as a post-emergent damage was caused to the Slash seedlings in some trials but others suffered no ill effects. Weed control was satisfactory and work is proceeding with the object of finding the reason for these differences in behaviour. Aromatic content of the spirit used was 17·7 per cent. and the rate of application, 35 gallons per acre.

Plots of Honduras Slash, established for comparison with U.S.A. Slash, on a variety of sites at Beerwah, Tuan and Toolara show the Honduras species to advantage in all drained frost free sites. Typical figures for average "c" type soils planted at Tuan in 1950 are as follows :—

Experiment No.	Species.	Survival.	Average Height 1954.	Increment 1953–54.
		Per cent.	Inches.	Inches.
38	*P. caribaea* (Honduras)	90	140	66
	P. elliottii var. elliottii (U.S.A.)	80	118·5	52
36	*P. caribaea* (Honduras)	90	142·2	63
	P. elliottii var. elliottii (U.S.A.)	92	120	53

Experiments on method of application of Nauru phosphate have reached the stage where the advantage of application around the plant, immediately after planting, over the broadcast application at the same time, has been lost. Current increments in plots five years or more in age favour the broadcast application. The early benefit from the application around the tree does not appear to warrant two applications, viz., initially around the tree and later broadcast. Plots to check on this have been established.

3. *Hoop Pine.*—The 1953–54 seed crop was moderately heavy and cone counts made in four series of Free Growth Experiments, two at Imbil and two at Yarraman, showed the same effect of space on cone production as observed with the Exotics. On the other hand the effect of strangulation girdling, root pruning and fertilizing has been slight.

Browning of cones has been long accepted as the criterion of seed ripeness for collection, but in the 1950 crop this index proved unsatisfactory. In connection with the 1953 crop observations were made on cone density and on the developing embryo. Variation in cone density over the critical period was so slight that it would afford no practical aid, but it was found that the embryo develops rapidly from mid-November and that when the embryos, generally, are full grown and mature in appearance collection is safe.

Nursery experiments with chemicals for weed control were continued and outstanding results were obtained from the use of formalin as a pre-emergent. Increased germination with reduced weeding times resulted from the treatment and this will be followed up with the 1954 sowing.

The principal research with Hoop Pine at the present juncture is in long-term thinning experiments. The intensity of first thinning has been well established and calls for reduction of the stand to 350 stems per acre when the average predominant height is about 50 feet (age 13 to 15 years). Data is being accumulated which indicates that second thinning is desirable to about 270 stems per acre when the average predominant height is about 70 feet (age 19 to 20 years).

4. *Coastal Hardwoods—Prescribed burning.*—Work has continued on the experiments on prescribed burning in the Spotted Gum-Ironbark type in the Maryborough district, mentioned in previous reports. At R. 958 Gundiah, where the selected compartment is to be burnt as frequently as can be done without undue damage, two successful burns have now been carried out and a third is proposed in the near future. At R. 57 St. Mary, where less frequent burning is proposed, one burn has been effected, and the compartment has been covered by logging operations, top disposal, and a part of standard silvicultural treatment. After the next burn, treatment will be completed by thinning and liberation of regeneration.

Average girth increments for the period 1953–54 for the principal species are—

Species.	R.958 Gundiah.		R.57 St. Mary.	
	Burnt.	Unburnt.	Burnt.	Unburnt.
	Inches.	Inches.	Inches.	Inches.
Spotted Gum	·46	·35	·77	·33
Red Ironbark	·99	1·28	1·09	·91
Grey Ironbark	1·04	·87	1·20	·69
Forest Red Gum	·93	·58	1·30	·40
White Mahogany	·92	·85	·75	·93

Extensive detailed counts of undergrowth species were made at R. 958 Gundiah, and showed that two fires have resulted in a 54 per cent. kill of wattle. In the case of lantana, only a 5 per cent. kill has been achieved, but the majority has been killed back, with subsequent production of coppice shoots, and this has greatly reduced seed production. However, burning appears to have favoured germination of this species, and seedlings now average 140 per acre over the burnt compartment. It is possible that the next burn will destroy the majority of these.

As stated in last year's report, plantings of tubed stock of Spotted Gum were made in the burnt compartment, and 25 per cent. survived the 1953 burn. Survivals on individual plots varied from 8 per cent. to 73 per cent., depending on the local intensity of the fire.

Fertiliser Experiments.—In Flooded Gum (*E. grandis*) plantations at Pomona response has been obtained from the application, around each tree, of superphosphate at the rate of 1 cwt. per acre. Results are set out below for one such trial in which the fertiliser was applied two months after planting. The site is a poor one, on which Flooded Gum has failed previously.

Total heights and survivals (averaged over eight plots) 20 months after the application of the fertiliser, together with height increments for the year, 1953–54, are :—

Treatment.	Average total height (feet).		Survival.
	1954.	Increment 1953–54.	
			Per cent.
Fertilised	5·11	2·25	84
Control	3·46	1·34	67

Response has been shown, in the older plantations, to both superphosphate and ammonium sulphate. Further work is proposed along these lines.

Use of 2, 4, 5-T.—The development of coppice, following the thinning of young Eucalypt stands, is a serious problem, and the application of dilute solutions of 2, 4, 5-T to cut stumps after thinning has shown great promise in the prevention of coppice development. It is thought that stump height may have an effect in determining the concentration necessary for effective control, and this aspect is currently being investigated.

A promising method of application of 2, 4, 5-T is the injection of small quantities of a fairly concentrated (5-10 per cent.) solution of the amine salt in water or the lintyl ester in oil into a number of axe cuts at the base of the tree. Kills of up to 85 per cent. have been obtained with Blackbutt (*E. pilularis*). Indications are that cost of initial treatment and material will not exceed that of axe thinning and a more effective " kill " should result in better growth response from stems retained. Plots for comparison of growth rates under both types of treatment have been established.

5. *South-West Queensland.*—Most of the research work in this area is of a long-term nature and is being maintained to determine thinning procedures, chiefly for Cypress pine.

During the year the plantings of shade and fodder trees were extended and a number of many-rowed windbreaks laid out with species designed to give various profiles to the wind.

Protection.—Although the almost rainless period from April to August gave promise of a severe fire season, subsequent rains entirely altered the position and the season was one of the least hazardous experienced. No major outbreaks occurred.

Firebreak work was continued on much the same level as for the past two years.

The plant position for such work is improving and three new heavy motor graders were added to the equipment. There is still, however, a pronounced shortage of this type of machine.

Firebreak construction and maintenance were carried out as shown in the following table :—

CLEARED BREAKS—PLANTATIONS.

	Miles.
Construction—	
Temporary breaks	53·1
Clear	116·0
Rotary hoe	14·3
Grade	50·9
Scrub break improvements	22·7
Maintenance—	
Chip	79·1
Burn	196·5
Rotary hoe	240·2
Grade	561·9

CLEARED BREAKS—WESTERN FORESTS.

Construction—	
Cut and grub	156·3
Stack and burn	26·8
Improvement—	
Grub roads	20·6
Grade	233·6
Stump	22·5
Green strips	215·7
Maintenance—	
Sucker and burn	374·8
Grade	1,119·4
Rotary hoe	368·1

GREEN BREAKS (COASTAL HARDWOOD AREAS).

	Miles.
Construction—	
Fell dangerous trees	14·1
Stack and burn	28·5
Improvement	51·3
Roads	22·0
Maintenance—	
Chip and/or plough	1,369·5
Burn	1,206·9
Roads	331·4
Grade	599·5

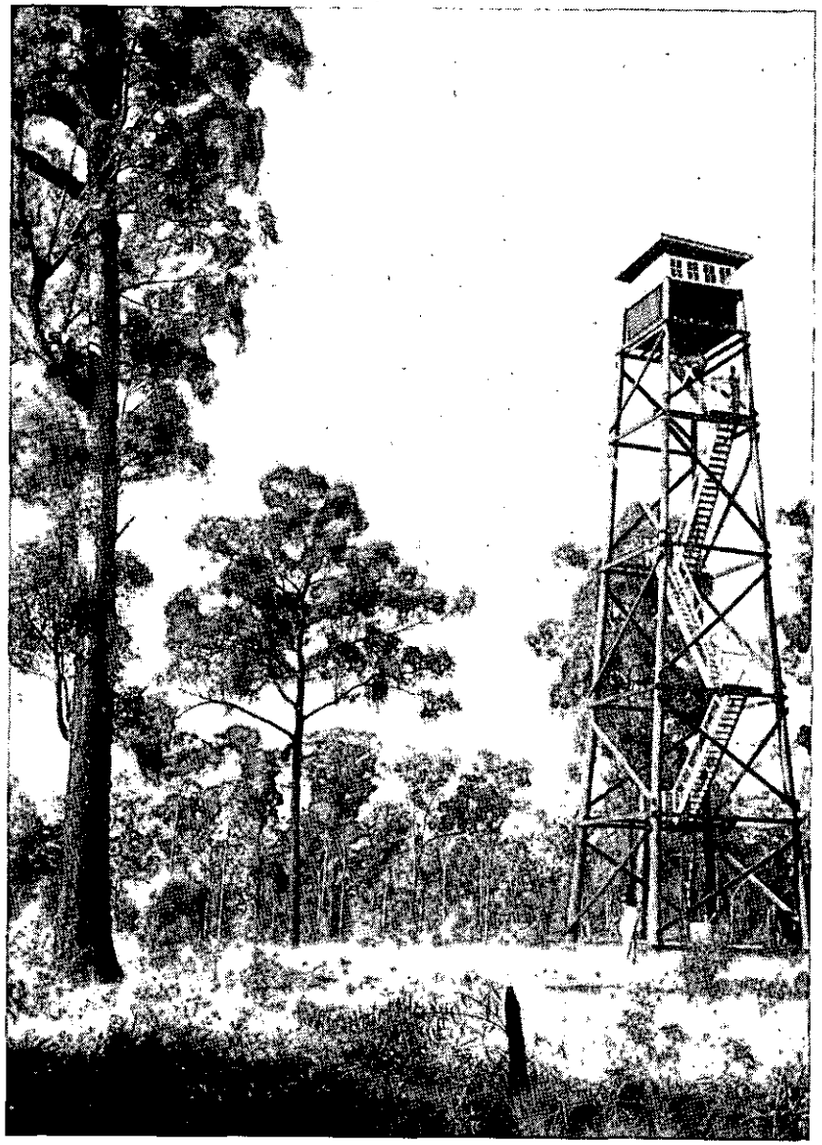
Capital Improvements.—The major task of the past few years, that of improved accommodation for single men, has been almost completed. It is hoped that a start can soon be made to provide a higher standard of housing for married men living on the job with their families.

The major items of construction undertaken during the year are outlined below.

The maintenance programme has now settled down to a normal one after years of overtaking wartime lag.

IMPROVEMENTS CONSTRUCTED.

Item.	Completed 1953–54.
Barracks (6 man)	4
Barracks (8 man)	1
Telephone lines	32¼ miles
Garages	3
Sheds	6
Lookouts	3
Grids and culverts	102
Offices	3
Bridges	26
Store rooms	2
Water supply	1



A STANDARD TYPE FIRE TOWER.

This 80 foot tower is one of sixty towers and observation cabins constructed to ensure early detection of fire outbreaks.

TYPE OF TREE USED IN TREE BREEDING.

Progeny tests have shown this Slash Pine tree to be a good genotype and grafted stock from this parent has been established in the seed garden for future plantations. A further 5,100 acres of softwood plantations were planted in 1953-54.

Expenditure and Labour.—Because of reduced allocation the expenditure on reforestation of £1,096,296 was £149,880 below that of 1952–53.

Details are recorded in Appendix H but the major headings of expenditure were :—

	£
Plantations	229,250
Natural regeneration	25,015
Nursery expenses	36,519
Research	16,044
Surveys	17,930
Protection	229,883
Capital improvements	61,844
Tools, tents, supervision, &c.	225,356
Wet time, holidays, leave	123,262
Cartage of rations	12,215
Camping allowance	55,872
Pay Roll Tax	21,128
Workers' compensation	25,572
Seed collection and storage	7,120
Miscellaneous	9,286
	£1,096,296

The wages staff on reforestation, 1,397 at the beginning of July, dropped to 1,200 in January, but had increased to just over 1,500 at the close of the year. Labour turnover has appreciably decreased during the past two years and in the last six months the building up of the labour force has been slow because of the unavailability of labour prepared to work in the bush.

ACQUISITION OF LAND.

During the year 1953–1954 an amount of £4,175 3s. 0d. was expended on the acquisition of land for forestry purposes, as follows :—

	£	*s.*	*d.*
Purchases of Land	1,972	0	0
Compensation paid for Resumption	1,361	19	6
Survey and Real Property Fees	414	2	0
Payment for Improvements on Surrendered Selection	23	4	0
Miscellaneous	403	17	6
	£4,175	3	0

Four properties, covering an area of 863 acres 2 roods 35 perches, were purchased for forestry purposes and resumption was made for National Park purposes of an area of 1,000 acres of a Pastoral Holding. A small area of 2 acres 1 rood 20 perches was resumed for forestry purposes.

Two areas totalling 6,797 acres of expired leaseholds were gazetted State Forests and areas totalling 30,660 acres from nine expired leaseholds and one surrendered area were proclaimed Timber Reserves. An area of 11,400 acres, surrendered from a Pastoral Holding, was proclaimed a National Park.

FIRES.

A tabulated summary of outbreaks of fire on, or threatening forest reservations during the year ended 30th June, 1954, shows the magnitude of fires as follows :—

¼ acre or less.	¼ acre to 10 acres.	10 acres to 100 acres.	Over 100 acres.	Unknown.
2	11	22	22	62

An examination of the causes of the outbreaks, as disclosed by these reports, shows :—

In 61 cases, cause unknown.
In 16 cases, deliberate burning.
In 7 cases, from burning off logs.
In 4 cases, from burning rubbish.
In 4 cases, from billy fires.
In 4 cases, from camp fires.
In 3 cases, from dropped cigarette butts.
In 3 cases, from lightning.
In 3 cases, sparks from burning firebreaks.
In 3 cases, from smouldering stumps.
In 3 cases, sparks from trains.
In 2 cases, sparks from tractors.
In 2 cases, fire spread from adjoining properties.
In 1 case, from robbed bee hive.
In 1 case, sparks from burning house.
In 1 case, burning off grass for grazing.
In 1 case, fuse used for blasting.

Total ..119 cases.

During the year one prosecution was instituted by the Police in the case of an unauthorised fire and assault of the Forest Officer, who is a fire warden, and a fine of £20 was imposed. Another prosecution for an unauthorised fire is pending.

In five other cases the offenders were requested to meet all, or part of the firefighting costs incurred by the Department in controlling the outbreaks and an amount of £44 12s. 1d. was collected in this manner.

FOREST SURVEYS.

Eleven fully-equipped camps operated throughout the year, while eight smaller camps were occupied on district surveys as occasion demanded.

Total expenditure for survey work amounted to £45,639 10s. 7d. of which £27,709 12s. 10d. was chargeable against Harvesting and Marketing projects and the balance, £17,929 17s. 9d., against reforestation projects.

As a result, 54,579 acres were assessed (Classes 2 and 3); 28,587 acres were subjected to either firebreak, compartment or soil survey; 65,769 acres were covered by forest inventory survey, entailing the establishment of 613 plots; 1,307 plots were remeasured, whilst 68,096 acres were closely inspected (Class 1, Survey).

Mileage completed was :—

	Miles.	Chains.
Theodolite and chain	54	43
Compass and chain	973	39
Strip survey	878	13
Grade lines	44	45
Old boundaries	55	51
Cross sections	11	17
Levels	1	11

Briefly, operations in each district were :—

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

Class 3 survey on R. 194 Herberton and Western was continued until May, when camp shifted to the Russell River to run an investigation road survey through portions 142, 143, and R. 748, Bellenden Ker. This work was constantly hampered by wet weather and heavy jungle.

The second camp was continuously occupied with road location survey, carrying out investigation surveys in R. 772, R. 185, Danbulla, and R. 310, Gadgarra.

In January camp shifted to the " K " Tree road, parish of Jordan, and two routes were located and traversed to the South Johnstone River in R. 756.

This camp shifted to the end of the Maalan road in May and work on routes into the Charappa Creek area is in progress.

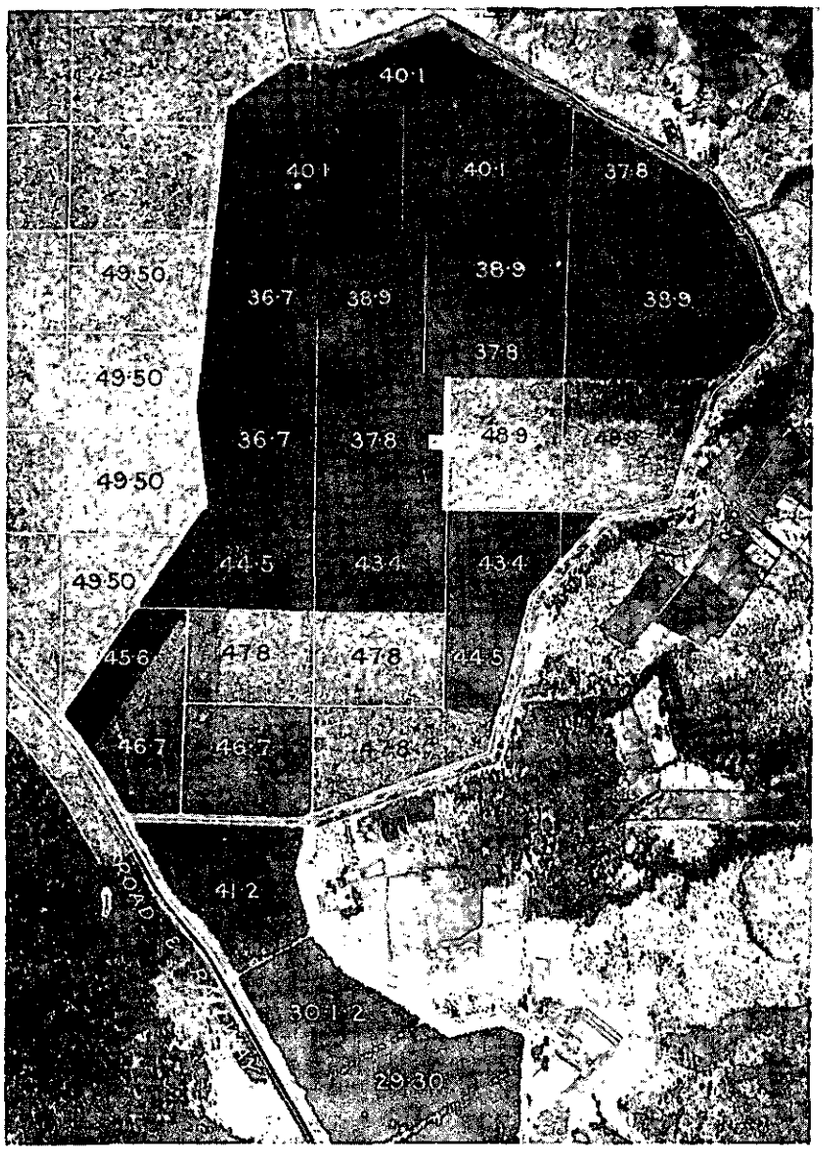
Mackay.—Classes 1 and 2 surveys were effected by the camp based at Cotherstone, spotted gum areas being located and traversed on Dunsmure and Stephens Holdings, and portion 7, Cotherstone. In October camp shifted to Eldin Holding, completing assessment of this and Cherwell and Headborough Holdings. After Christmas camp was transferred to the Springsure district, where cyclonic weather prevailed in the new year. Areas in the parishes of Cairdbeign, Sirius, and Aldebaran were inspected but proved disappointing; Moorilla Holding shows promise as regards spotted gum stands.

Maryborough.—Soil and compartment surveys on State Forest 915, Tahiti and Bidwell, were continued and the ten-year plan for Tuan has now been completely covered by soil survey, approximately 8,048 acres being dealt with this year. At the end of April the Gympie and Maryborough camps were amalgamated under the control of Forest Survey Ranger.

A second small camp carried out re-survey at State Forest 298, Gallangowan, and the compartmenting of Camp Logging Area R. 154. In addition, soil survey of approximately 3,480 acres on Timber Reserve 563, Gregory, together with the balance of reserve in the parish of Electra, was stripped. Other district miscellaneous surveys were effected on R. 169, St. Agnes, R. 8, Doongul, and R. 220, Kilkivan.

In April another camp started the remeasurement of Forest Inventory Survey Plots on S.F. 958, Gundiah. Due to lack of staff, similar work on R. 57, St. Mary, had to be abandoned.

Gympie.—Soil and compartment surveys on R. 1004, Toolara, continued until the beginning of April, when this camp was re-organised, transferred and combined with the Tuan party. A second camp completed hardwood inventory survey on R. 393, Woondum, by early December, and the party then shifted to R. 234, Tuchekoi, routine inventory being carried out and two yield plots established, field work being completed by 30th March.



Pechey (near Toowoomba)—showing firebreaks and roads, and areas planted in various years.

JIMNA—A.—Nursery and Forest Station. B.—Sawmill and Settlement.
C.—Plantations (dates show years in which planted). D.—Scrub firebreaks.
E.—Firetower. Plantation roads and firebreaks are clearly seen.

By the end of May plots had also been established on R. 502, Gympie, and this camp then transferred to R. 57, St. Mary (Maryborough district).

In January a small camp was formed for the purpose of effecting miscellaneous district surveys as required. These included minor jobs on R. 135, R. 256, and R. 274. A fourth camp was established in August for the purpose of carrying out remeasurement of plots in Hoop Pine plantations on R. 435, R. 124, R. 256, R. 135, and R. 274. A total of 385 plots was remeasured and twelve new plots established. Camp was later shifted to the Brisbane Valley, engaging in similar duties.

Dalby.—Two camps operated throughout the year on forest inventory and compartment survey.

The first completed survey on S.F. 184, Stretchworth and Halliford, before shifting to R. 4, Braemar, in March, where work is still proceeding.

The second camp, after surveys on R. 155, Durabilla, transferred to Yuleba at the beginning of December, where, to date, 218 plots have been remeasured. New forest inventory survey of part of R. 60, Tchanning (Old Dulacca South) was also completed.

Brisbane Valley.—Small three-man district camp carried out firebreak, road and scrub-falling surveys as required throughout the year.

At the end of April forest inventory remeasurement on Hoop Pine plantations was commenced by the transferred Gympie party and by the end of report period 404 plots had been completed, and a further six new plots established on R. 151, Neumgna.

Many Peaks.—Miscellaneous firebreak, road, species, and scrub-falling block surveys were carried out by small district camp on R. 67, R. 107, and R. 95, as required.

Brisbane.—The principal work effected was the continuation of soil and compartment surveys for exotics, mainly on R. 611, Beerwah, and also on R. 638 and R. 589. Approximately 3,000 acres were dealt with on R. 611.

Another small camp at Jimna (Reserves 207 and 137) closed down after six months, firebreak and road surveys being its main duties.

A third camp completed forest inventory survey of the Kenilworth and Cooloolabin Reserves by the middle of June.

NATIONAL PARKS.

It is most appropriate, in this section of the Annual Report of the Forestry Department for the year ended 30th June, 1954, that special reference be made to the late C. J. M. Trist, who, until his untimely death on 1st January, 1954, had charge of National Parks in Queensland.

The late Mr. Trist worked with untiring zeal and fervour for the furtherance of the National Parks idea in this State of Queensland.

The philosophy behind National Parks, originating in the famed Yellowstone National Park in the United States of America, found in him an ardent disciple.

Yellowstone National Park was reserved as a public possession in 1872. At that time, Cornelius Hedges, a young Montana lawyer and a member of the pioneer party which explored this magnificent region, gave voice to the first expression of the philosophy behind National Parks. In animated discussion about the camp fire, following a day of exciting experiences, as the party was reviewing the various proposals for the utilisation of their discovery, Mr. Hedges voiced the following thought :—

> " It seems to me that God made this region for all the people and all the world to see and enjoy forever. It is impossible that any individual should think that he could own any of this country for his own and in fee. This great wilderness does not belong to us, but to America. Let us make a public park of it and set it aside for America, never to be changed, but kept sacred always just as it is now, so that Americans always may know how splendid this early America was, how beautiful, how wonderful."

The outcome of this declaration was the creation of Yellowstone National Park, the first of its kind in the world.

The late Mr. Trist always kept this National Park philosophy in mind and fought for its application here.

He described our National Parks as :—

> " Fragments of the original Australia, reserved so that they may be preserved in their primeval condition, for the recreation, health, enjoyment, and education of the people as a whole."

On another occasion he said :—

"By reservation as National Parks, areas of scenic, scientific or recreational interest can be maintained as nearly as possible in their original condition so that some fragments of Australia will be kept unspoilt and untouched, not only for our enjoyment, but that of our children and their children for all time. It is easy to realise that with the passing of time and the increasing destruction of natural vegetation by fire and the axe these remnants of Australian bushland and the denizens who find sustenance and sanctuary in them will be of great and evergrowing delight to, and value for the community."

Under the late Mr. Trist's guidance, the Department invested £300,000 in improvements on the National Parks, principally in the shape of graded access tracks which, whilst not interfering with the woodland beauty, afford easy access for persons of all ages.

His name will live forever in the National Parks annals of this State.

During the year an area of 11,400 acres in the parish of Cannon was surrendered from Glenhaughton Holding, in the Taroom district, and proclaimed a National Park. It is a striking, scenic area in rugged country, embracing the picturesque Robinson Gorge. Two small islands adjoining Dunk Island, Mound and Mung-um-Gnackum, were proclaimed National Parks, as, also, was a small patch of jungle known locally as the Yungaburra scrub, traversing the Gillies Highway and covering 13 acres. Additions were made to parks at Eungella (Broken River), Kondalilla, and Bunya Mountains. There are now 242 parks covering a total area of 778,549 acres.

It is pleasing to record evidence of greater interest in the National Parks, not only by holiday visitors, but by the public generally, particularly in country centres. Shire Councils and Progress Associations, also, are becoming increasingly aware of their economic and aesthetic value.

There is a more general recognition, too, of the work of the Department in the administration and development of these areas. The rural community appreciates and commends the active supervision and control exercised by the Department.

The sum of £29,643 was expended on National Parks during the year 1953–54, bringing the total expenditure to £328,086 since work commenced in 1936–37.

The cyclonic disturbances of unusual intensity experienced caused much damage to the track systems, and it was necessary to concentrate employees on clearing fallen timber, improving drainage and restoring the tracks to good order. 4 miles 6 chains of new tracks were constructed, bringing the total to 218 miles 13 chains.

Some features of work during the year were :—

Warrie (Springbrook).—Work commenced on a round trip track from the Canyon entrance via Upper Blackfellow Falls.

Bunya Mountains.—Formation of the West Cliffs track was extended to Paradise car park, thus linking the Saddletree Creek tracks on the East with Wescott track on the West.

Kondalilla.—The construction of the southern section of the round trip track, via the Falls, was continued, opening up new aspects of the Palm Valley and providing a delightful creek-side walk.

Mount Glorious.—Recommencement was made on the track connection between East and West Boombana National Parks.

Burleigh Heads.—Obelisk and ornamental entrance sign erected and 150 feet of stone walling put in to reinforce banks on Ocean View track.

Palmerston Highway.—A circular track from the Highway, via Nandroya Falls, down Douglas Creek Gorge and back to the Highway, was completed. This track, of 3½ miles in length, makes available to sightseers some beautiful and interesting waterfall, gorge, and mountainous jungle scenery.

Lake Eacham.—Repairs and painting of kiosk were carried out under supervision of Public Works Department. This work has greatly improved the appearance of the building.

Green Island.—Repairs to the jetty were carried out. A novel and interesting idea was put into operation when a marine underwater observation chamber was placed on a coral reef by Messrs. Vlasoff and Grigg, of Cairns. This chamber, which is fitted with heavy glass windows through which coral and marine life can be viewed in its natural habitat, is very popular.

Lindeman and Hayman Islands.—A start has been made with the construction of graded tracks on both these islands.

HARVESTING AND MARKETING.

General.—The expanding timber needs of the State are reflected in the year's record removal of log timber from Crown lands, totalling 240,736,725 superficial feet.

The 17 per cent. increase over last year's cut is made up by an additional 6,000,000 superficial feet of Cypress Pine, 9,000,000 superficial feet of forest hardwoods, 5,500,000 superficial feet of cabinetwoods, 6,000,000 superficial feet of miscellaneous species, 2,000,000 superficial feet of scrub-hardwoods and 6,000,000 superficial feet of plantation thinnings.

The Hoop and Bunya Pine and Kauri Pine removals were on much the same level as previously.

It is pleasing to note the increasing use of miscellaneous species and of plantation thinnings.

It has been possible to increase the cut of forest hardwoods only by the use of species and of logs of a type once considered to be inferior, and, in fact, industry must look to this class of hardwood log timber to help sustain the present cut for any period of years. Modern technique has assisted in processing these logs for the recovery of valuable sawn timber.

Operating conditions in the logging industry remained relatively stable during the year. An appreciable increase in the cutters' set-to-earn rate followed the gazettal of an Award variation for timber-getters.

Due, mainly, to rail freight increases, key market prices advanced approximately 6 per cent. for all species. Price adjustments in Hoop and Bunya Pine as between the various grades of pine log were gazetted in November, 1953, resulting in a small overall increase.

Competition for hardwood and for scrubwood logs was most marked in the South Eastern area of the State where auction sales continued to attract increased bids over upset prices.

Sales which carried rights to the establishment of new mills, and covering plantation thinnings, were held for two areas, one in each of the Gympie and Monto districts. In the latter case competition resulted in a considerable increase in the purchase price.

The falling off in the demand for poles and sleepers, which became evident last year, continued during the year under review. However, the yearly requirement to cut constructional round and hewn timbers totalled nearly 46,000,000 superficial feet. Supply of high quality girder logs remains difficult, and the position will not improve, as the proportion of species acceptable for girders will form a decreasing proportion of the overall log cut.

The active demand for Cypress Pine for Queensland and New South Wales markets led to a rate of cutting which caused concern to the Department and to those dependent on the Cypress Pine stands for local supplies of sawn timber. Accordingly, action was taken to stabilise the rate of cutting with a view to a reasonable continuity for this section of the industry. At the end of the year log price adjustments were under consideration with a view to encouraging flow of sawn Cypress to local requirements, and, also, to bring about a more realistic relationship between existing sawn and log prices.

Buoyancy of the industry is indicated by a record net revenue from timber sales of £1,523,909 14s. 4d.

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

Year.	Queensland Grown.							Imported.	Total.
	Hoop and Bunya Pine.	Kauri Pine.	Plantation Thinnings.	Cypress Pine.	Hardwood.	Cabinet Woods.	Miscellaneous.		
	(1,000 superficial feet.)								
1948–49	69,104	4,406	6,626	33,524	211,553	23,117	55,564	5,964	409,858
1949–50	55,779	4,904	8,384	37,159	218,649	23,913	57,871	9,499	416,158
1950–51	47,681	5,558	11,925	34,736	229,510	21,211	54,365	8,552	413,538
1951–52	56,416	7,741	15,319	46,167	271,222	22,263	62,334	5,778	487,240
1952–53	64,374	6,327	6,322	52,834	275,491	24,913	37,148	2,735	470,144
1953–54 (estimated).	58,649	6,117	9,926	51,654	243,420	29,679	45,465	5,284	450,194

Mill Logs—Crown Lands.—The following are the annual quantities of logs obtained from Crown lands as from 1943–44 :—

	super ft.		super ft.
1943–44	202,000,000	1949–50	202,000,000
1944–45	193,000,000	1950–51	187,000,000
1945–46	190,000,000	1951–52	238,000,000
1946–47	220,000,000	1952–53	206,000,000
1947–48	204,000,000	1953–54	240,000,000
1948–49	208,000,000		

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

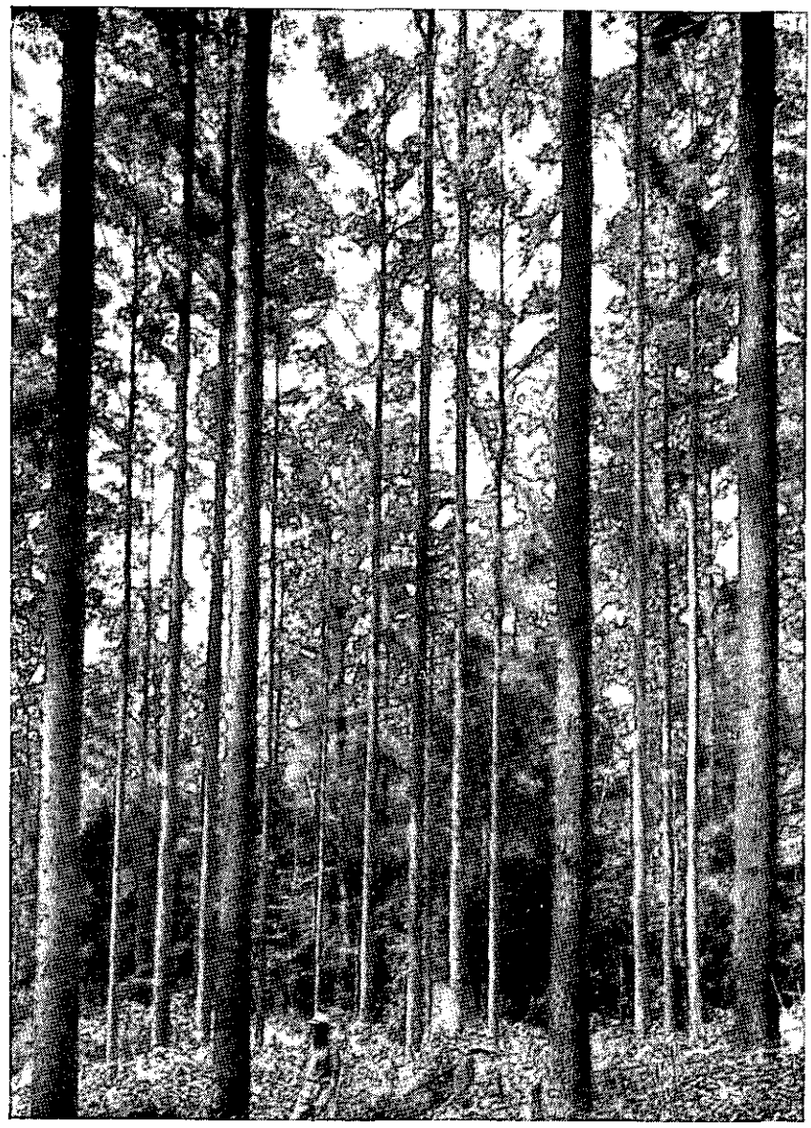
Year.	Hoop and Bunya Pine.	Kauri Pine.	Cypress Pine.	Forest Hardwoods.	Scrub Hardwoods.	Cabinet Woods.	Miscellaneous.	Plantation Timbers.
			(1,000 superficial feet.)					
1949–50	55,215	4,906	18,317	59,272	11,417	16,452	27,735	8,648
1950–51	46,588	5,055	15,667	61,618	7,907	13,324	24,948	12,313
1951–52	57,680	7,677	25,883	70,227	9,809	18,366	32,991	15,666
1952–53	60,755	5,577	25,151	62,063	10,228	19,377	17,728	5,121
1953–54	60,269	5,821	31,259	71,251	12,258	24,876	23,510	11,455

The Timber Business.

	1952–53.	1953–54.
(a) Mill Logs—		
Hoop and Bunya Pine ..	60,755,000 super. feet	60,269,000 super. feet
Forest Hardwoods ..	62,063,000 super. feet	71,251,000 super. feet
Scrub Hardwoods ..	10,228,000 super. feet	12,258,000 super. feet
Cypress Pine	25,151,000 super. feet	31,259,000 super. feet
Kauri Pine	5,577,000 super. feet	5,821,000 super. feet
Cabinet Woods	19,377,000 super. feet	24,876,000 super. feet
Miscellaneous Species ..	17,728,000 super. feet	23,510,000 super. feet
Plantation Timbers ..	5,121,000 super. feet	11,455,000 super. feet
Stumps and Flitches ..	8,000 super. feet	38,000 super. feet
Total Crown Mill Logs ..	206,008,000 super. feet	240,737,000 super. feet
(b) Construction Timbers—		
Headstocks, Transoms, Crossings, Braces ..	650,903 super. feet	534,084 super. feet
Sleepers	1,322,481 pieces	878,448 pieces
Girders, Corbels, Piles, Sills, and Girder Logs	97,722 lineal feet 522,954 super. feet	83,296 lineal feet 291,993 super. feet
Poles	517,898 lineal feet	461,189 lineal feet
House Blocks	292,405 lineal feet	310,793 lineal feet
Mining Timbers	621,865 lineal feet	337,977 lineal feet
Mining Timbers	146,697 pieces	53,103 pieces
Gross Receipts from Timber Sales	£2,541,904	£2,513,058
Net Revenue	£1,344,969	£1,523,909

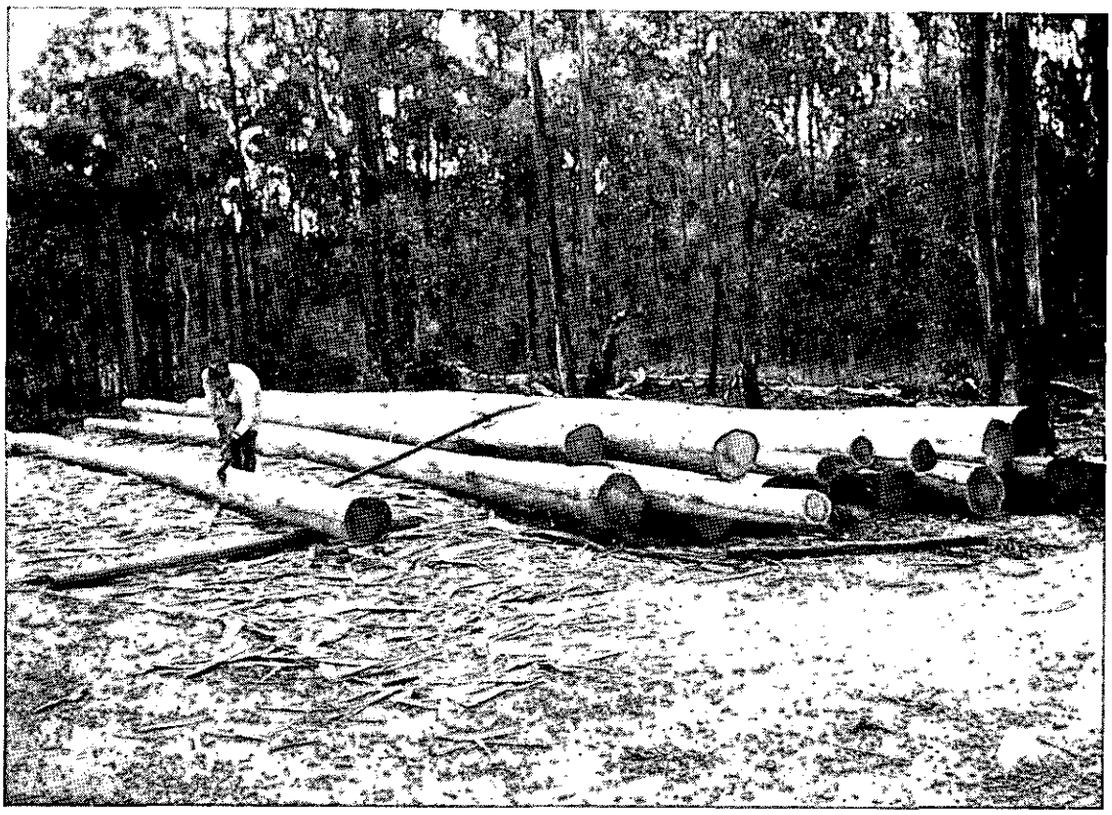
Logging.—During 1953–54 the following quantities were hauled by, and payment made to, contractors to the Department :—

Class.	Quantity.	Expenditure.
	Super. feet.	£ s. d.
South Queensland—		
Hoop and Bunya Pine	32,139,116	
Kauri Pine	311	
Forest Hardwoods	1,332,911	
Scrub Hardwoods	193,502	
Miscellaneous	363,573	
Cedar	43,965	
	34,073,378	289,305 18 2
North Queensland—		
Kauri Pine	1,123,663	
Cabinet Woods	8,623,789	
Forest Hardwoods	795,066	
Scrub Hardwoods	2,442,984	
Miscellaneous	5,846,282	
Cedar	141,436	
	18,973,220	180,444 18 4
Totals	53,046,598	469,750 16 6



AN EXCELLENT STAND OF YOUNG HARDWOOD IN THE GYMPIE DISTRICT.

This area received its first silvicultural treatment 15 years ago. In 1953-54 25,900 acres of natural forest were given silvicultural treatment.



POLES FOR EXPANSION OF ELECTRICITY SUPPLY TO RURAL AREAS.

In 1953-54 the equivalent of 46,000,000 s. ft. of hardwood in the round was provided from Crown areas for use as poles, piles, sleepers, girders and the like. Cut of hardwood mill logs was 71,000,000 s. ft.

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

Rosewood—	T.	C.	Q.
In stock at 1st July, 1953	41	12	0
Purchased during year	321	17	2
	363	9	2
Exported to Hongkong	148	0	2
On hand 30th June, 1954	215	9	0

No Sandalwood was purchased or exported during the year.

The Plywood Industry.—Manufactured deliveries from plywood and veneer mills during the year 1953–54, as compared with the previous year, were as follows :—

	1952–53. Square feet.	1953–54. Square feet.
Through the Southern Board	60,132,914	69,468,212
Through the Northern Board	26,923,253	52,076,480
	87,056,167	121,544,692

Distribution of production for 1953–54 was as follows :—

—	Southern Board.	Northern Board.	Total.
	Sq. ft.	Sq. ft.	Sq. ft.
Queensland	16,994,755	18,921,404	35,916,159
Interstate	52,005,690	33,144,033	85,149,723
Overseas	467,767	11,043	478,810
Total	69,468,212	52,076,480	121,544,692

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

	£ s. d.		£ s. d.
On 17th July, 1953	11 4 0	to	11 5 0
On 16th October, 1953	11 5 0	to	11 8 0
On 12th February, 1954	11 8 0	to	11 11 0

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

Class of Timber.	1-3-54. £ s. d.
Sleepers—squared 7 feet per 100 pieces	56 7 3
Sleepers—hogback 7 feet per 100 pieces	46 1 11
Crossing timbers per 100 super. feet	3 8 4
Transoms per 100 super. feet	3 19 0
Braces per 100 super. feet	3 10 9
Headstocks per 100 super. feet 12 inches by 6 inches	4 2 3

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

Class of Timber.	1951–52.	1952–53.	1953–54.
Sleepers	865,537 pieces	1,103,453 pieces	559,786 pieces
Crossings	139,737 super. feet	266,436 super. feet	280,601 super. feet
Transoms	154,489 super. feet	226,789 super. feet	130,326 super. feet
Bridge timber (round)	52,182 lineal feet	51,780 lineal feet	16,658 lineal feet
Bridge timber (square)	7,214 super. feet	25,674 super. feet	16,154 super. feet

Logging Roads—1953–54.

Expenditure by Main Roads Department :—

	£
Construction	86,931
Maintenance	33,146

Forestry Department road programme for the year constituted 63 miles 60 chains of construction. Location and working surveys covering 79 miles were carried out.

Expenditure from Forestry votes was as follows :—

	£
Construction	77,304
Maintenance	30,813
Subsidies to Shire Councils	11,118
Investigation Surveys	3,404
Workers' Compensation	273
Pay Roll Tax	1,391
	124,303

SAWMILL LICENSES.

The policy of fully examining any applications for new licenses and recommending issuance only when they could be granted without detriment to the existing industry was continued during the year. This resulted in an appreciable drop in the number of licenses issued.

There were 682 mills in operation at 31-3-54.

The following table sets out the position of current licenses at the beginning and end of the year, new licenses issued and the number that have not sought renewal :—

Number of Licenses as at 30th June, 1953.	Sawmill Classification.	New Licenses Granted.	Number Ceasing to Operate.	Mills Re-licensed.	Restrictions Withdrawn.	Formerly Restricted now Unrestricted.	As at 30th June, 1954.
1,053	General Mills	10	56	..	..	1	1,008
45	Case Mills	..	12	..	1	..	32
48	Sleeper Mills	2	10	..	..	..	40
20	Other restricted	1	1	..	..	..	20
65	Resaw and dressing	3	7	..	..	..	61
1,231		16	86	..	1	1	1,161

Mills already established are experiencing increasing difficulty in securing adequate log supplies.

The active competition that exists, particularly in South-eastern Queensland, emphasises the fact that there are already too many licensed mills in existence for the supplies available.

The fact that 86 mills ceased to operate during the year, at a time when timber demand was active, also emphasises the shortage of log supplies and the general undesirability of granting further sawmill licenses.

OFFENCES.

During the year ended 30th June, 1954, officers reported on 277 cases of breaches of Acts and Regulations administered by the Department.

Proceedings were successfully instituted against 32 persons. Of these 23 were proceeded against for unauthorised cutting or removal of timber, for which fines totalling £147 were imposed; one for an unauthorised fire and assault of the Forest Officer, who is the Fire Warden, a fine of £20 being imposed; another for damage to departmental property and assault of the Forest Officer, for which the offender was fined £7 14s. 0d.; and the remaining seven persons for breaches of the Timber Users' Protection Act.

In 105 cases of unauthorised timber operations, where it was considered offences did not warrant proceedings, the value of the timber was collected and warnings issued.

In 20 instances of minor offences no action was taken other than to issue warnings.

In 19 cases of unauthorised ringbarking investigated, appropriate action was taken.

As a result of action taken in all cases, an amount of £3,821 was recovered for the Crown in timber revenue.

Many complaints were received from homebuilders under the Timber Users' Protection Act in respect of the use of lyctus susceptible timber. In all, 111 cases were investigated by officers of the Department.

A very pleasing feature of these cases was the readiness of many builders to remedy the defects once the position was explained to them. Only in six cases was it necessary to take proceedings, and fines totalling £100 were imposed.

In a successful prosecution in the lower Court an appeal lodged by the defendants to the Supreme Court was upheld.

In 44 of these complaints, investigations by officers of the Department were responsible for the builders replacing the affected timber, whilst in nine other cases the complainants were satisfied to have the timber treated. In one instance, the house was repurchased by the builder.

FOREST PRODUCTS RESEARCH.

General.—A wider recognition of the need for greatly improved production efficiency, and control of quality of finished product in the conversion industries, is overdue.

Inefficiency cannot continue to be subsidised by indiscriminate price increase, nor can the industry afford to place its markets in pawn to substitute materials and imports by ignoring the quality and standard of its products.

While a not inconsiderable section of the industry is alive to these dangers, there is still a definite need for all sections to realise that efficiency is primarily dependent on the continuous application to its processes of technical knowledge resulting from research.

The year's work in extension activities has revealed a lack of appreciation, by the industry, of simple well-known facts, particularly in the technique of seasoning sawn timber and veneer. It cannot be too strongly emphasised that poor seasoning practice is the basic cause of many production difficulties in addition to that of virtually all complaints concerning quality.

In an endeavour to provide industry with sufficient access to technical knowledge and to encourage the use of desirable technique, the Department has intensified its extension activities by the appointment of a qualified officer to the North Queensland district.

Increases in the amount of design and advisory service provided have also been dictated by the considerations outlined. Key operatives in industry were given suitable training in particular technique as the demand arose.

The programme of studies in sawmill economics was continued, having two particular objects in mind :—

(*a*) To determine the basic production statistics and to set up therefrom standards of performance and efficiency which will determine the prices charged by the Crown for various species and grades of logs.

(*b*) To improve the performance of the individual mill by providing information on production and engineering defects in both that mill and industry generally.

Close liaison has been maintained with the Division of Forest Products, C.S.I.R.O., the Government Botanist and Standards Association of Australia. The Seventh Forest Products Conference at Melbourne in April, 1954, was attended by officers of the Department. The results of current research were discussed and co-ordination of future Forest Products Research activities achieved.

Acknowledgment is again due to various trade associations and individual firms for the ready assistance given in mutual problems.

Engineering and Sawmill Economics—Extension Activities.—Resulting from thirteen mill studies on hardwoods in South-East Queensland carried out during 1952-53, reports were issued to the mills concerned on engineering aspects of production and layout. Five mills requested further information on modification of their layout and operating technique, with the result that there has been a general increase in their production rates. This highlights the need, in the hardwood industry in particular, for efficient breakdown rig and No. 1 bench equipment and operation. At the request of the Director of Native Affairs, the sawmill at Bamaga Aboriginal Settlement, Cape York, was inspected and detailed recommendations submitted on plant and design. Attention was given to economic handling of waste and designs were prepared for six McCashney Incinerator Units, four of which have been constructed.

Advice was given on log and sawn yard handling equipment and a 300 feet 4 ton capacity cableway for log storage was designed for a North Queensland Sawmill.

Demand still exists for design of immunisation plants and a twin concrete chamber plant was designed in detail for a Central Queensland Mill.

Sawmill Economics.—Four mill studies were carried out during the year, viz. :—

1. Kauri Pine Plantation Thinnings—South Queensland.
2. Silky Oak, Queensland Maple, Maple Silkwood—North Queensland.
3. Red and White Eungella Satinash—Mackay.
4. Hoop Pine C and D Grade Logs—South Queensland.

The analysis of the thirteen studies of hardwood was completed early in the year and a detailed report submitted to the co-operating association.

Investigation of methods of application of stumpage assessment on gross hoppus volume was continued and the results of the thirteen hardwood studies used as a basis for proposed procedure.

Cypress Pine studies carried out in 1945 and 1947 were re-analysed in the light of current trade practice, as a preliminary to a review of the log price structure. A punch card system of recording a continuous sample of the State log cut of the various species was set up and has already proved its value in speed and accuracy of calculation in log pricing work.

Research.—Limitations of suitable technical staff at the Experimental Yard have curtailed proposed operations in sawmill engineering research.

Installation of equipment for circular saw research was completed but it was not possible to commence experimental projects. The installation of a small bandmill allowed pilot trials of experimental break down patterns in coniferous Plantation Thinnings to be carried out.

These projects are designed to correlate break down pattern and behaviour in seasoning. The importance of backsawing free from pith in relation to subsequent stability of the sawn product has been demonstrated. This work will be extended to correlate sawing pattern with log diameter and grade of sawn product.

Recovery and grading studies of logs of Hoop Pine Plantation Thinnings, stored on mill skids for various periods under summer wet season conditions, have been completed and the results are being analysed.

Seasoning and Timber Physics.—1. Seasoning.—The transfer of the Officer in Charge of seasoning extension work to North Queensland has restricted the activities of this section but, by staff rearrangements, the essential work has been carried on pending the appointment of suitable officers.

Attention was paid to efficiency of kiln drying of veneer in North Queensland, three kilns being tested and recommendations made for improvement. Design details are in hand for two new veneer drying kilns.

In sawn timber, interest in electrically heated kilns for final drying after a period of air drying has increased, and while one unit is under construction a number of electrical and insulation problems need to be solved before full scale design of these units is undertaken. A steam heated twin reinforced concrete kiln was designed for a North Queensland Mill.

Lectures on seasoning were given to key operatives at a large South Queensland saw and ply mill. Air seasoning research has been confined to Pinus taeda and Pinus caribaea (correlation with sawing pattern) and 1-inch and 1½-inch Spotted Gum boards.

Little kiln seasoning research could be undertaken. The kilns were operated for drying of special material on a commercial basis, and some 7,500 superficial feet was dried experimentally in an investigation of drying schedules on an overnight shut down basis.

The demand for moisture content determinations from builders, architects, and housing authorities continued and certificates were provided for some 1,400 samples submitted for test.

The standard of seasoning in industry is, with a few notable exceptions, far from satisfactory. A continuous shortage of dry dressed flooring and external sheeting is apparent in the main market centres, and is a reflection of the general low standard of seasoning in sawn boards.

The plywood industry has also yet to realise that rigid control of moisture content of veneer is essential to satisfactory standards of production of plywood, particularly in view of the general use of synthetic resin glues.

2. Timber Physics.—Investigation of the physical properties of plantation grown conifers and naturally regenerated Eucalypts was resumed during the year. Work was confined to a consideration of the trends of basic density and longitudinal shrinkage throughout the stem, and correlation of these properties with stability of the sawn product.

Preliminary analysis of past and current work with Eucalypt regeneration up to 50 years of age indicated that a cone-shaped core of wood of low density is developed in the early years of growth. The height of this cone seems to vary with rate of height growth and there appears to be little correlation of its diameter at breast height with the rate of diameter growth at this point. While the samples are small, and caution must be used in interpretation of the results, there is, perhaps, some reason to believe that once the stem reaches a certain stage in both height and diameter growth it commences to put on wood which is within the normal range of density for the species, and that, within the range of growth rates which might be attained under forest conditions, for all practical purposes the size of this poor quality core will not vary to any significant extent from that shown in the old growth stands.

The work with plantation conifers is proceeding and it will be desirable to commence, in the near future, a general survey of wood quality throughout the State's plantations and naturally regenerated stands, in order to attempt the correlation of silvicultural practice and desirable qualities in the wood produced.

Wood Chemistry and Preservation.—1. Preservation.—The testing of organic oil borne preservatives was continued and preparations made for installing some 1,600 treated stakes in two field exposure sites. Treatment records of these stakes were transferred to punched cards to facilitate subsequent analysis of field inspections. Routine inspection and check analysis of treatment solutions and treated samples from approved preservation plants were continued to ensure a satisfactory standard of immunisation against " Lyctus brunneus."

Special checks of temperature and circulation phases of treatment were made as a result of these routine analyses, and major redesign of heating units in one plant was necessary so that treated material could meet the requirements of the Timber Users' Protection Act. A nomogram to facilitate the calculations necessary in preparing solutions in boric treatment plants was prepared and issued to all plant operators.

208 authentic wood samples were forwarded to the Division of Forest Products, C.S.I.R.O., to determine susceptibility to attack by Lyctus brunneus.

Two track installations of treated railway sleepers were kept under observation during the year and the survey of causes of failure of untreated sleepers continued. Observations were continued on paint exposure panels on behalf of the Commonwealth Defence Research Laboratories.

Constant check has been kept on imported housing to determine the extent of infestation by the European House Borer (Hylotrupes bajalus). There has been no further evidence of infestation beyond the original discovery of a small number of live larvae and no adult emergence has been detected. In view of the long life cycle of this insect, this check will be maintained. The evidence to date suggests that the infestation might have been confined to the few original larvae. In view, however, of the possibility of establishment of this insect in Queensland, arrangements have been made with appropriate authorities in South Africa for the testing of susceptibility of two native conifers, Hoop Pine (Araucaria cunninghamii) and Kauri Pine (Agathis sp.) and also of the toxicity of boric acid to this insect.

2. Timber Users' Protection Act.—Intensive inspection of current building activities in the main Southern Queensland centres, Mackay and Rockhampton, was maintained during the year. 329 buildings under construction were visited and the requirements of the Act explained.

3. Plywood and Veneer.—An estimated annual quantity of 1,500 tons of urea resin glue was used by the plywood industry. This represents at least 75 per cent. of the consumption of all types of glue. The use of casein is rapidly decreasing.

Further work was done on laboratory trials of various glue formulations and the co-operative experiment with manufacturers and the Plywood and Veneer Board is entering the stage of commercial scale trials.

Quality standards have not yet reached an overall satisfactory position and with the increasing use of the synthetic glues close technical control of all phases of manufacture of plywood is essential. Staff shortages and delays in delivery of essential equipment have limited experimental work to maintenance of current projects.

4. Chemical Laboratory.—Recurrent breakdowns in the ventilation system have seriously hampered laboratory work on all projects. The following analyses were made during the year :—

Preservation	593
Soil and Water	1,390
Plywood	509

Wood Anatomy and Utilisation.—The demand for identification of wood specimens has been maintained, some 1,400 being received during the year. Approximately 500 botanical specimens, principally North Queensland Rain Forest trees, were identified by the Government Botanist, a large number of these identifications being for confirmation of authentic wood specimens. As a result, major additions were made to the standard reference collection, and 75 duplicate authentic specimens were supplied to the Division of Forest Products, C.S.I.R.O. Opportunity was also taken to establish a reference herbarium—principally of rain forest species and some 450 species are now represented.

The card sorting key for the woods of Northern Rain Forest species was issued to appropriate District Officers and additional cards prepared as authentic material came to hand.

A draft of the dichotomous botanical key was field tested in the Mackay district and further work is proceeding. Extension activities in utilisation were continued and advice provided on the qualities and uses of many native and imported species. Close co-operation was maintained with Division of Forest Products, C.S.I.R.O., in the supply of authentic material required for preservation, wood anatomy and timber mechanics research.

Experimental Yard.—Maintenance of existing equipment and the provision of new equipment at the Experimental Yard has increased its usefulness in experimental projects.

It is apparent, however, that lack of space at the present site is detrimental to its full value and an early start on the proposed new facilities at the Department's Rocklea establishment is necessary.

The fancywood section was maintained to handle sawn material becoming available from research projects and to provide special material for departmental use.

Sales recorded were—

Sawn timber	9,594 super feet
Fishing rod pieces	65 super feet

A considerable amount of custom planing was carried out for the Department of Public Works.

STAFF.

The Department suffered a great loss in the untimely death of its first secretary, Mr. C. J. Trist, on 1st January, 1954, after a long illness.

The late Mr. Trist joined the Queensland Forest Service from the New South Wales Forestry Commission on 28th November, 1919. Records show he was selected because of his special knowledge of the activities of a Forest Service, and the aims of Forestry. His thirty-five years of duty with the Department show how faithfully he lived up to these qualifications.

A man of outstanding ability and knowledge, an administrator of the highest calibre, he played a major role in shaping and moulding the future of Forestry in this State.

An idealist, he had an impassioned love for our National Parks, and reference to his work in this direction is made under the section of the report dealing with National Parks.

He was Secretary of the first Rural Fires Board and, after the passing of the 1946 Rural Fires Act and the reconstitution of the Board with wider membership and functions, he was appointed its Chairman, which position he held until his death.

His knowledge and experience were readily available to all members of the staff, irrespective of rank, and the Department can ill afford to lose such an outstanding officer.

Two other deaths sadly recorded are those of Clifford Hagan, Forest Ranger, Ballon, who passed away on 7th August, 1953, at the early age of forty-six, and Forester Samuel B. Menadue, Brisbane, tragically killed in the performance of duty on 26th November, 1953.

Mr. Hagan joined the Department in 1935 and will be remembered by those who came in contact with him as a man who held the highest ideals of service.

In the passing of Mr. Menadue the Department lost one of its most likeable and esteemed personalities. Mr. Menadue commenced as a probationer in 1920 and rose to the position of Forester, Division I., Brisbane, in 1952. He was intensely interested in our hardwood forests and it was whilst engaged on the job of putting into first class silvicultural order the hardwood forests in the Brisbane and North Coast areas that he met his death.

There were twenty-three resignations during the year including those of Forest Ranger H. V. (Pat) Scouller, Gin Gin, after thirty-five years of loyal and efficient service, and Mr. S. J. Higgins, Senior Inspector, who resigned to join a private timber firm. Mr. Higgins commenced as a Cadet in 1916 and rose to the rank of Senior Inspector in 1945. He will be long remembered for his pioneering work in the Mary Valley forest areas.

Three officers with long and meritorious service, Forest Rangers A. E. Smith, Cairns, C. J. Smith, Brisbane, and Mr. J. W. Anderson, Head Office, retired during the year.

The number of salaried officers increased from 307 to 311. Wages staff increased from 1,615 in June, 1953, to 1,765 in June, 1954.

ACKNOWLEDGMENT.

To all my staff, whose efforts are reflected in these pages, I take this opportunity of expressing my thanks.

V. GRENNING,
Director of Forests.

Appendices.

APPENDIX A.

Return of Timber, &c., Removed from Crown Lands during the Year ended 30th June, 1954.

Species.	Quantity. Super. feet.	Super feet.
Milling Timber—		
Hoop and Bunya Pine—		
Ply	7,231,997	
Logs	29,401,611	
Tops	23,634,980	
		60,268,588
Kauri Pine	5,820,496	
Cypress Pine	31,258,787	
Forest Hardwoods	71,250,961	
Scrub Hardwoods	12,258,488	
Cabinet Woods	24,875,596	
Miscellaneous Species	23,510,159	
Stumps and Flitches	38,428	
		169,012,915
Plantation Thinnings—		
Hoop Pine	7,284,611	
Bunya Pine	4,611	
Kauri Pine	57,705	
Pinus caribaea	2,158,443	
Pinus taeda	1,325,089	
Pinus patula	240,715	
Pinus radiata	346,759	
Pinus echinata	7,560	
Pinus pinaster	453	
Cupressus lusitanica	19,005	
Cedar	756	
Silky Oak	9,515	
		11,455,222
		240,736,725

		Expressed as Superficial Feet (Hoppus) Log Measure.
Other Classes—		
Sleepers	431,026 pieces	16,378,988
Sleeper Blocks (as sleepers contained)	447,422 pieces	16,107,192
Transoms	196,804 superficial feet	314,886
Headstocks, Crossings, Longitudinals	337,280 superficial feet	539,648
Girders, Corbels, Piles, Sills, Kerb Logs	83,296 lineal feet	1,499,328
Girder Logs	291,993 superficial feet	291,993
Poles	461,189 lineal feet	3,228,323
House Blocks, Round Posts	310,793 lineal feet	1,864,758
Fencing Material—Split	421,950 pieces	3,797,550
Fencing Material—Round	296,472 lineal feet	741,180
Hewn and Bridge Timbers	41,780 superficial feet	66,848
Mining Timbers—Split	53,103 pieces	212,412
Mining Timbers—Round	337,977 lineal feet	675,954
Stakes	7,624 pieces	60,992
Miscellaneous Sawn Timber (offcuts)	948 superficial feet	1,517
		45,781,569

Fuel	61,538 tons
Charcoal	40,047 bags
Trees and Plants (Number)	303,316
Sand, Gravel, Soil, &c.	94,234 cubic yards
Rosewood	322 tons
Lawyer Cane	140 tons
Shell Grit	180 tons
Staghorns and Ferns	103 pieces
Byfield Fern	£140
Leaves	2,000 lb.
Peat	119 bags
Distilled Oil	133 lb.

APPENDIX B.

Annual Cut—Pine—Financial Year ended 30th June, 1954.

Forestry District.	Ply.	Logs.	Tops.	Total.
	Super. feet.	Super. feet.	Super. feet.	Super. feet.
Brisbane	138,523	4,066,250	2,372,566	6,577,339
Brisbane Valley	4,559,904	13,463,630	12,432,318	30,455,852
Dalby	..	2,605	209	2,814
Gympie	325,997	2,252,900	1,274,713	3,853,610
Mackay	..	66,226	55,052	121,278
Monto	737,849	2,748,021	2,226,915	5,712,785
Maryborough	1,469,724	6,305,900	4,882,060	12,657,684
Warwick	..	496,079	391,147	887,226
Total	7,231,997	29,401,611	23,634,980	60,268,588

APPENDIX C.

Receipts under the State Forests and Timber and Quarry Regulations for the Year ended 30th June, 1954.

Districts.	Totals. £	s.	d.
Group 1—South Queensland (Brisbane, Bundaberg, Gympie, Monto, Maryborough, Toowoomba, Yarraman)	1,362,611	3	2
Group 2—Goondiwindi, Inglewood, St. George, Stanthorpe, Warwick	60,107	9	8
Group 3—Dalby	44,163	14	11
Group 4—Charleville, Cunnamulla, Roma, Quilpie	712	3	2
Group 5—Barcaldine, Blackall, Jundah, Longreach, Muttaburra, Stonehenge, Winton, Aramac, Isisford, Jericho	508	9	3
Group 6—Clermont, Emerald, Springsure	3,750	7	4
Group 7—Gayndah, Gladstone, Taroom, Theodore, Mundubbera	39	13	8
Group 8—Rockhampton	1,937	16	2
Group 9—Mackay	7,206	7	4
Group 10—Bowen	4,637	9	8
Group 11—Townsville	14,317	14	8
Group 12—Charters Towers—Ravenswood	137	19	11
Group 13—Hughenden	120	15	6
Group 14—Cloncurry, Boulia, Kynuna, Mackinlay	211	10	4
Group 15—North Queensland (Atherton, Herberton, Cooktown, Port Douglas, Cairns, Innisfail, Ingham)	705,698	2	7
Group 16—Burketown, Coen, Croydon, Georgetown, Normanton, Thursday Island	Nil		
	£2,206,160	17	4
Receipts—Forestry and Lumbering	289,912	3	2
Sale of Plants, Material, &c.	10,920	8	4
Licenses* (See Note after Appendix D)	2,374	8	5
Rents and Grazing Dues	6,426	0	5
	2,515,793	17	8
Less Treasury Refunds	2,735	9	11
	£2,513,058	7	9

Comparisons with Totals of Previous Years.

1949–50.	1950–51.	1951–52.	1952–53.	1953–54.
£1,010,459	£1,279,446	£2,182,406	£2,541,904	£2,513,058

APPENDIX D.

Proceeds of Sales of Timber, &c., for the Period 1st July, 1950, to 30th June, 1954.

Districts.	1950–1951. £	s.	d.	1951–1952. £	s.	d.	1952–1953. £	s.	d.	1953–1954. £	s.	d.
Group 1	753,340	19	7	1,330,134	10	2	1,311,804	7	9	1,362,611	3	2
Group 2	10,869	11	9	31,837	17	2	43,160	10	1	60,107	9	8
Group 3	30,963	9	0	34,212	15	5	37,932	1	7	44,163	14	11
Group 4	505	9	4	458	14	8	485	15	1	712	3	2
Group 5	759	1	4	1,797	12	11	905	9	5	508	9	3
Group 6	2,268	8	9	4,435	18	0	2,556	8	10	3,750	7	4
Group 7	202	14	0	235	11	10	62	2	8	39	13	8
Group 8	1,269	13	0	2,692	17	0	2,403	14	7	1,937	16	2
Group 9	6,172	3	3	7,711	6	4	7,478	19	0	7,206	7	4
Group 10	2,838	5	1	5,701	5	6	3,239	19	3	4,637	9	8
Group 11	6,793	0	10	16,139	6	9	8,037	19	4	14,317	14	8
Group 12	206	8	9	232	14	5	450	2	1	137	19	11
Group 13	286	19	10	397	6	7	380	17	7	120	15	6
Group 14	402	5	7	461	10	3	220	13	2	211	10	4
Group 15	293,406	4	3	446,715	17	11	549,294	2	4	705,698	2	7
Group 16	7	12	5	3	3	4	1	10	0	..		
	1,110,292	6	9	1,883,168	8	3	1,968,414	12	9	2,206,160	17	4
Receipts—Forestry and Lumbering	155,030	4	2	285,073	18	4	558,492	1	7	289,912	3	2
Sale of Plants, Material, &c.	11,239	18	3	27,909	5	3	13,296	7	11	10,920	8	4
Licenses*			Not	previously recorded			separately			2,374	8	5
Rents and Grazing Dues	4,769	5	5	5,475	16	11	6,078	2	7	6,426	0	5
	1,281,331	14	7	2,201,627	8	9	2,546,281	4	10	2,515,793	17	8
Less Treasury Refunds	1,885	6	8	19,220	18	9	4,377	2	10	2,735	9	11
Total	1,279,446	7	11	2,182,406	10	0	2,541,904	2	0	2,513,058	7	9

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

APPENDIX E.

The following Schedule illustrates the market price of logs during the year 1st July, 1953 to 30th June, 1954:—

Species—Standard Trade Names. (Botanical Names and Common Names in Brackets).	Log Class.	Delivery.	Price per 100 super. feet (Hoppus measure).		
			As at 1-7-53.	From 1-8-53.	From 7-11-53.
			s. d.	s. d.	s. d.
Red Tulip Oak (*Argyrodendron peralatum*) ..	8 ft. plus	F.o.r. Cairns ..	33 8	35 5	35 5
		F.o.r. Townsville..	33 8	35 5	35 5
Red Cedar (*Cedrela toona*)	8 ft. plus	F.o.r. Cairns ..	63 8	65 5	65 5
		F.o.r. Townsville..	63 8	65 5	65 5
		F.o.r. Netherdale	48 2	49 6	49 6
	6 ft. plus	F.o.r. Brisbane ..	71 8	73 4	73 4
North Queensland Kauri Pine (*Agathis palmerstoni*)	8 ft. plus	F.o.r. Cairns ..	53 8	55 5	55 5
		F.o.r. Townsville..	53 8	55 5	55 5
Queensland Walnut (*Endiandra palmerstoni*) ..	8 ft. to 8 ft. 11 in.	F.o.r. Cairns ..	44 7	46 4	46 4
		F.o.r. Townsville..	44 7	46 4	46 4
Northern Silky Oak (*Cardwellia sublimis*)	8 ft. plus	F.o.r. Cairns ..	53 8	55 5	55 5
		F.o.r. Townsville..	53 8	55 5	55 5
Queensland Maple (*Flindersia brayleyana*) ..	8 ft. to 8 ft. 11 in.	F.o.r. Cairns ..	58 8	60 5	60 5
		F.o.r. Townsville..	58 8	60 5	60 5
Black Pine (*Podocarpus amara*)	8 ft. plus	F.o.r. Cairns ..	43 8	45 5	45 5
		F.o.r. Townsville..	43 8	45 5	45 5
Silver Silkwood (Putts Pine) (*Flindersia acuminata*)	8ft. plus	F.o.r. Cairns ..	53 8	55 5	55 5
		F.o.r. Townsville..	53 8	55 5	55 5
White Beech (*Gmelina leichhardtii*) (*Gmelina fasciculiflora*)	8 ft. plus	F.o.r. Cairns ..	53 8	55 5	55 5
		F.o.r. Townsville..	53 8	55 5	55 5
	6 ft. plus	F.o.r. Brisbane ..	56 8	58 4	58 4
Hickory Ash (Hickory) (*Flindersia ifflaiana*) ..	8 ft. plus	F.o.r. Cairns ..	43 8	45 5	45 5
Northern Silver Ash (White Ash) (*Flindersia pubescens*)	8 ft. plus	F.o.r. Cairns ..	53 8	55 5	55 5
		F.o.r. Townsville..	53 8	55 5	55 5
Queensland Silver Ash (Ash) (*Flindersia bourjotiana*)	8 ft. plus	F.o.r. Cairns ..	53 8	55 5	55 5
		F.o.r. Townsville..	53 8	55 5	55 5
Bolly Silkwood (Tarzali Silkwood) (*Cryptocarya oblata*)	8 ft. plus	F.o.r. Cairns ..	33 8	35 5	35 5
		F.o.r. Townsville..	33 8	35 5	35 5
Satin Sycamore (*Ceratopetalum succirubrum*) ..	8 ft. plus	F.o.r. Cairns ..	33 8	35 5	35 5
		F.o.r. Townsville..	33 8	35 5	35 5
Yellow Walnut (*Beilschmiedia bancroftii*) ..	8 ft. plus	F.o.r. Cairns ..	33 8	35 5	35 5
		F.o.r. Townsville..	33 8	35 5	35 5
Hardwoods	6 ft. plus	F.o.r. Brisbane, Warwick	28 9	30 5	30 5
Hardwoods	6 ft. plus ..	F.o.r. Maryborough, Bundaberg	28 3	29 11	29 11
Hardwoods	6 ft. plus	F.o.r. Rockhampton	32 2	34 7	34 7
Hardwoods	6 ft. plus	F.o.r. Townsville..	31 2	32 11	32 11
Hardwoods	6 ft. plus	F.o.r. Mackay ..	30 4	33 2	33 2
Hoop Pine Ply	7 ft. plus	F.o.r. Brisbane ..	80 1	81 9	81 9
Hoop Pine "A" Quality Logs	7 ft. plus	F.o.r. Brisbane ..	59 7	61 3	66 1
Bunya Pine Logs	7 ft. plus	F.o.r. Brisbane ..	58 1	59 9	64 7
Hoop Pine "C" Quality Logs	7 ft. plus	F.o.r. Brisbane ..	48 1	49 9	42 10
Hoop Pine "D" Quality Logs	7 ft. plus	F.o.r. Brisbane ..	35 3	36 11	40 6
Bunya Pine Tops	7 ft. plus	F.o.r. Brisbane ..	35 3	36 11	40 6
Cypress Pine	28 in. plus ..	F.o.r. Brisbane ..	27 10	29 4	29 4
		F.o.r. Rockhampton	26 8	27 10	27 10
		F.o.r. Gympie, Maryborough, and Bundaberg	25 8	26 4	26 4
South Queensland Scrubwoods—					
Case and Building Timbers Group (*a*)	6 ft. plus	F.o.r. Brisbane ..	31 11	33 7	33 7
Common Cabinetwoods Group (*b*)	6 ft. plus	F.o.r. Brisbane ..	33 10	35 6	35 6
Special Purpose Timbers Group (*c*)	6 ft. plus	F.o.r. Brisbane ..	35 9	37 5	37 5

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

Brown Alder (*Ackama paniculata*)
Red Apple (*Eugenia brachyandra*)
Blush Coondoo (*Planchonella richardii*)
Rose Satinash (*Eugenia francisii*)
Mararie [*Pseudoweinmannia lachnocarpa*)
Pink Poplar (Blush Cudgerie) (Maidens Blush) (*Euroschinus falcatus*)
Brush Mahogany (Red Carrobean) (*Geissois benthami*)
Yellow Carabeen (Carrobean) (*Sloanea woollsii*)
Bollywood (Brown Bollywood) (Bollygum) (*Litsea reticulata*)
Tulip Plum (Burdekin Plum) (*Pleiogynium cerasiferum*)
Brown Tulip Oak (Crows Foot Elm) (*Argyrodendron trifoliolatum*)
Silky Beech (*Citronella moorei*)
Rose Walnut (*Endiandra discolor*)
White Birch (*Schizomeria ovata*)
Blush Walnut (*Beilschmiedia obtusifolia*)

(*b*) Common Cabinetwoods Group includes the following species :—

Rose Mahogany (*Dysoxylum fraseranum*)
Southern Silky Oak (*Grevillea robusta*)
Silver Quandong (*Elæocarpus grandis*)
Miva Mahogany (*Dysoxylum muelleri*)
Sassafras (*Daphnandra micrantha* and *Doryphora sassafras*)
Rose Maple (Rose Walnut (Pigeonberry Ash) (*Cryptocarya erythroxylon*)
Blush Alder (*Sloanea australis*)
Brown Pine (She Pine) (*Podocarpus elatus*)
Silver Sycamore (*Cryptocarya glaucescens*)

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

Crows Ash (*Flindersia australis*)
Ivorywood (*Siphonodon australe*)
Southern Silver Ash (Bumpy Ash) (*Flindersia schottiana*)
Yellowwood (*Flindersia xanthoxyla*)
Yellow Boxwood (*Planchonella pohlmaniana*)

APPENDIX F.

Constructional Timber supplied during Financial Year 1953-54 under Forestry and Lumbering Operations.

Class of Timber.	Quantity.	Sales Value. £	s.	d.
Sawn Crossings	372 superficial feet	13	3	6
Hewn Crossings	280,229 superficial feet	12,701	12	5
Headstocks, Longitudinals and Braces	16,154 superficial feet	666	3	8
Hewn Transoms	127,682 superficial feet	5,433	5	5
Sawn Transoms	2,644 superficial feet	107	8	9
Girders—Dressed	6,116 lineal feet	3,832	5	1
Girder Logs	34 lineal feet	16	15	6
Piles	10,374 lineal feet	3,130	5	1
Sills	134 lineal feet	90	9	0
Poles	1,475 lineal feet	413	11	6
Round Posts	13,547 lineal feet	1,541	17	2
Split Posts and Rails	40,323 pieces	3,683	1	11
Hewn Sleepers	83,033 pieces	40,871	15	10
Sawn Sleepers	29,331 pieces	13,652	11	2
Sleeper Blocks (as sleepers contained)	447,422 pieces	177,147	2	11
Total	..	£263,301	8	11

APPENDIX G.

Comparative Statement of Expenditure for Years 1952-53 and 1953-54.

	1952–53.	1953–54.
	£	£
Revenue—		
Salaries	207,159	229,579
Travelling and Incidentals	24,769	26,094
Extra Living Allowances	1,590	1,628
Fares, Printing, Stores, &c.	6,411	5,377
Cash Equivalent Extended Leave	1,051	2,553
National Parks	13,000	29,643
Reforestation	238,176	8,916
Access Roads	87,437	78,405
Forestry Roads	..	40,000*
Purchase of Plant	21,348	61,131
Loan—		
Reforestation	808,000	1,059,000
Acquisition of Land for Forestry Purposes	6,581	4,175
Trust—		
Hardwood Supplies to Railway Department and Others	488,682	247,800
Harvesting and Marketing Timber	646,848	667,072
Access Roads—Maintenance and Subsidies	61,404	45,898
Maintenance of Capital Improvements	..	28,379
Treasury—Post-War Reconstruction and Development Fund—		
Reforestation	200,000	..
National Parks	11,696	..
Total £	2,824,152	2,535,650

* Special grant made under Forestry vote for this year. The amount was expended by the Main Roads Department on behalf of the Forestry Department on access roads in North Queensland.

APPENDIX H.

Summary of Reforestation Expenditure, 1953-54.

Reserves.	Reforestation.				Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay-Roll Tax.	Reserve Total.
	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.	Forest Experiment.					Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
BRISBANE WORKING PLAN AREA.														
Reserve 69	..	..	..	..	..	988 1 1	30 12 11	..	204 0 5	180 17 3	47 1 9	..	..	1,450 13 5
Reserve 215	..	472 15 4	..	..	..	491 5 7	..	..	8 8 6	208 5 4	..	40 16 0	..	1,221 10 9
Reserve 283	..	..	..	..	11 0 2	..	..	..	..	..	..	..	..	11 0 2
Reserve 309	..	282 2 7	..	..	..	1,389 10 8	..	201 18 6	1,186 13 1	560 6 9	57 13 10	121 4 0	..	3,799 9 5
Reserve 359	700 0 0	..	..	..	3 12 6	916 15 3	15 6 10	..	213 10 0	163 8 8	64 11 9	100 4 0	..	1,477 9 0
Reserve 494	..	..	..	..	..	..	8 14 9	..	..	..	..	..	..	8 14 9
Reserve 496	..	..	..	..	3 0 0	940 4 6	30 12 9	22 12 7	283 13 8	241 0 1	3 4 0	46 16 0	..	1,571 3 7
Reserve 571	..	..	..	..	..	204 11 1	..	..	75 6 1	21 19 1	..	..	..	512 0 1
Reserve 593	210 3 10	138 15 7	..	..	..	260 19 5	..	..	62 4 8	85 5 0	..	..	..	647 4 8
Reserve 667	..	..	..	..	32 12 1	1,139 16 0	146 1 2	106 12 11	761 7 0	268 2 7	13 11 8	109 14 0	..	2,577 17 5
Reserve 702	..	..	..	..	..	144 11 0	..	..	19 8 2	15 0 2	..	..	..	221 9 2
Reserve 727	..	42 9 10	..	..	..	..	..	..	8 16 11	..	..	..	..	8 16 11
Reserve 1355	..	..	..	..	..	1,026 12 6	..	..	59 13 2	199 0 7	..	..	..	1,285 6 3
Reserve 1376	..	..	..	..	..	121 19 7	..	..	23 14 1	11 17 0	..	..	..	157 10 8
Reserve 1526	..	..	..	..	..	..	..	..	379 3 1	..	..	..	..	379 3 1
Administration	..	..	..	..	..	1,513 5 9	..	..	..	..	..	..	..	1,513 5 9
Firefighting and Patrol	..	..	..	..	..	..	..	..	..	..	..	..	..	30 14 10
Experiments	..	..	..	30 14 10	..	..	..	..	..	..	..	..	..	19 2 6
Miscellaneous Surveys	..	..	..	..	19 2 6	..	..	..	..	..	..	..	..	91 3 0
Drum Account	..	..	..	..	..	..	..	..	91 3 0	..	..	..	..	
	910 3 10	936 3 4	..	30 14 10	69 7 3	9,137 12 5	231 8 5	331 4 0	3,377 1 10	1,955 2 6	186 3 0	418 14 0	..	17,583 15 5
KILCOY WORKING PLAN AREA.														
Reserve 137/207	9,005 5 5	..	2,774 1 2	..	836 11 3	4,368 12 8	936 18 1	1,388 4 7	8,497 18 10	5,473 14 9	..	2,580 12 0	..	35,861 18 9
Reserve 370	..	215 13 8	..	..	8 2 9	988 6 9	100 12 10	1,286 19 11	564 6 0	475 9 10	102 2 9	164 8 0	..	3,690 8 10
Reserve 893	..	..	..	..	..	1,305 1 0	148 17 7	*Cr.* 24 10 2	343 13. 5	334 19 8	137 12 10	149 8 0	..	2,610 16 0
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	728 0 6	728 0 6
Administration	..	..	..	..	..	537 1 3	..	..	719 4 11	..	..	..	..	719 4 11
Firefighting and Patrol	..	..	..	61 8 0	..	..	..	..	..	..	..	..	..	537 1 3
Experiments	..	..	..	..	..	..	..	..	..	..	..	..	..	61 8 0
Drum Account	..	..	..	..	..	..	..	..	30 0 0	..	..	..	..	30 0 0
	9,005 5 5	215 13 8	2,774 1 2	61 8 0	844 14 0	7,199 1 8	1,186 8 6	2,650 14 4	10,155 3 2	6,284 4 3	239 15 7	2,894 8 0	728 0 6	44,238 18 3

APPENDIX H—*continued.*

Reserves.	Reforestation.				Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay-Roll Tax.	Reserve Total.
	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.	Forest Experiment.					Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
NORTH COAST WORKING PLAN AREA.														
Reserve 60	..	..	..	..	34 17 8	669 18 3	519 4 8	..	201 18 0	230 14 6	..	..	..	1,656 13 1
Reserve 108	30 6 5	42 9 0	..	..	117 18 5	403 5 9	150 16 2	39 15 7	55 9 11	82 14 6	..	9 4 0	..	931 19 9
Portion 158, Durundur	..	..	..	..	..	102 16 11	..	..	8 13 3	..	..	..	..	111 10 2
Reserve 173	..	..	..	..	9 18 4	2,603 7 6	76 16 3	49 16 9	664 0 9	620 10 10	44 8 9	79 4 0	..	4,148 3 2
Reserve 249	..	..	..	..	1 3 11	117 6 8	21 17 11	..	9 16 4	61 0 6	4 16 0	..	..	216 1 4
Reserve 313	..	..	..	..	..	446 16 0	21 12 1	..	78 16 7	22 13 8	..	1 4 0	..	571 2 4
Reserve 318	..	..	..	..	3 8 7	2,302 14 10	187 19 3	..	1,889 1 5	750 18 0	251 1 4	281 18 5	..	5,667 1 10
Reserve 445	..	..	..	..	..	1,555 6 3	18 13 7	9 16 10	639 1 9	465 7 11	22 12 9	116 2 6	..	2,827 1 7
Reserve 561	27 11 5	..	2,256 6 6	..	28 12 11	684 5 0	994 2 1	1,207 16 0	3,790 14 2	1,346 5 5	22 12 0	730 8 0	..	11,088 13 6
Reserve 583	..	..	..	..	1 15 10	..	..	..	..	..	..	..	..	1 15 10
Reserve 589	1,885 11 9	..	..	..	331 19 0	1,517 8 10	1,451 11 1	142 4 9	1,550 16 8	1,000 2 8	..	546 3 0	..	8,425 17 9
Reserve 611	15,683 16 4	..	1,948 9 10	..	2,137 7 2	13,676 9 8	1,853 15 10	751 1 3	11,164 1 8	5,292 12 5	..	2,750 2 1	..	55,257 16 3
Reserve 638	6,076 12 4	..	22 17 2	..	183 3 5	2,022 11 7	1,033 17 0	327 16 2	2,387 3 2	1,917 17 8	..	1,064 8 1	..	15,036 6 7
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	2,022 0 2	2,022 0 2
Administration	..	..	..	..	..	..	..	..	84 16 5	..	..	..	..	84 16 5
Firefighting and Patrol	..	..	..	..	..	5,217 18 4	..	..	..	..	..	..	..	5,217 18 4
Experiments	..	..	..	5,141 10 1	..	..	..	..	..	..	..	..	..	5,141 10 1
	23,703 18 3	42 9 0	4,227 13 6	5,141 10 1	2,850 5 3	31,320 5 7	6,330 5 11	2,528 7 4	22,524 10 1	11,790 18 1	345 10 10	5,578 14 1	2,022 0 2	118,406 8 2
BRISBANE VALLEY WORKING PLAN AREA.														
Reserve 120	1,930 2 7	..	..	..	68 6 10	2,402 3 1	167 8 5	148 16 9	1,885 13 11	636 17 10	..	..	..	7,239 9 5
Reserve 151	729 10 6	..	415 13 8	..	90 3 10	2,445 13 7	141 7 8	3 19 9	1,295 10 6	476 0 7	135 16 2	406 11 0	..	6,140 7 3
Reserve 257	7,643 11 3	..	1,350 6 7	..	70 19 2	1,497 9 7	319 13 10	357 2 11	3,905 16 0	2,524 10 6	66 8 0	1,096 4 0	..	18,832 1 10
Reserve 258	3,153 19 4	..	717 2 6	..	23 11 3	986 8 1	231 16 8	274 16 0	1,768 5 9	838 18 9	331 18 4	560 8 0	..	8,887 4 8
Reserve 283	13,533 3 10	43 14 5	1,903 3 6	..	325 1 6	5,410 0 4	543 12 0	841 2 0	10,322 12 10	5,307 18 4	..	2,141 18 0	..	40,372 6 9
Reserve 289	10,533 9 1	..	2,871 14 9	..	588 3 0	3,629 1 1	732 8 0	1,256 4 6	10,056 3 6	4,822 5 4	71 5 0	1,765 9 0	..	36,326 3 3
Reserve 299	8,099 7 8	..	1,242 17 2	..	207 13 10	2,956 19 11	258 17 9	191 13 10	4,601 18 1	2,620 2 5	64 10 0	1,064 2 8	..	21,308 3 4
Reserve 316	..	..	..	..	7 6 5	4 2 1	..	..	5 5 11	..	..	..	..	16 14 5
Reserve 328/9/474	..	..	241 3 2	..	50 1 1	18 19 10	45 12 3	222 16 5	124 18 7	63 11 3	5 18 6	28 4 0	..	801 5 1
Reserve 343	..	..	..	..	..	..	5 7 7	..	..	..	..	..	..	5 7 7
Reserve 379	923 14 7	..	..	..	35 5 8	1,027 7 1	..	238 8 10	721 17 0	174 9 2	..	..	..	3,121 2 4
Reserve 509	2,354 7 6	..	978 10 8	..	..	2,069 16 8	119 3 6	15 4 2	2,061 12 1	1,411 13 6	9 13 4	121 8 0	..	9,141 9 5
Reserve 527/8/9	..	504 2 0	..	..	96 18 8	934 5 6	92 12 1	17 0 9	1,220 0 3	290 0 11	217 11 9	203 0 0	..	3,575 11 11
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	3,240 6 2	3,240 6 2
Administration	..	..	..	..	..	..	..	..	663 8 3	..	..	..	..	663 8 3
Firefighting and Patrol	..	..	..	..	..	3,290 9 6	..	..	..	..	..	..	..	3,290 9 6
Experiments	..	..	..	2,136 6 1	..	..	..	..	..	..	..	..	..	2,136 6 1
Drum Account	..	..	..	..	..	..	..	..	*Cr.* 199 13 6	..	..	..	..	*Cr.* 199 13 6
	48,901 6 4	547 16 5	9,720 12 0	2,136 6 1	1,563 11 3	26,672 16 4	2,057 19 9	3,567 5 11	38,433 9 2	19,166 8 7	903 1 1	7,387 4 8	3,240 6 2	164,898 3 9

APPENDIX H—*continued.*

Reserves.	Reforestation.				Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay Roll Tax.	Reserve Total.
	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.	Forest Experiment.					Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
DALBY WORKING PLAN AREA.														
Reserve 4	..	127 8 8	..	..	..	1,671 13 11	74 13 1	10 16 9	1,090 6 11	307 8 9	333 12 10	255 16 2	..	3,871 17 1
Reserve 16	..	1,479 6 5	..	..	..	13,193 16 11	1,658 0 8	1,535 16 7	7,293 10 3	2,934 8 6	1,343 13 8	2,318 16 0	..	31,757 9 0
Reserve 78	..	4,469 4 8	..	..	..	3,295 7 11	181 5 10	31 7 4	4,440 1 1	1,520 13 7	736 0 8	1,148 12 0	..	15,822 13 1
Reserve 83/106	..	55 12 2	..	..	..	2,199 4 11	35 3 0	13 2 1	1,017 14 9	449 2 10	199 17 7	270 8 0	..	4,240 5 4
Reserve 93	..	958 0 9	..	..	..	1,733 1 6	33 4 7	7 0 3	1,512 6 9	486 4 3	212 15 10	409 4 0	..	5,351 17 11
Reserve 126	..	255 4 5	..	..	..	489 19 8	6 15 5	...	276 10 11	140 14 6	79 4 4	68 4 0	..	1,316 13 3
Reserve 150	..	..	..	..	0 15 0	1,519 9 10	53 13 10	44 10 2	1,144 19 7	296 5 7	60 7 3	226 0 0	..	3,346 1 3
Reserve 154	..	1,560 0 3	..	..	77 7 8	5,452 5 4	921 18 8	163 14 6	3,165 6 5	1,292 3 7	538 8 1	1,220 4 0	..	14,391 8 6
Reserve 155	..	66 8 2	..	..	..	2,910 13 9	191 18 2	140 4 9	1,016 12 2	345 12 10	239 15 11	291 8 0	..	5,202 13 9
Reserve 184	..	..	..	..	..	..	..	..	0 2 6	..	..	..	..	0 2 6
Pay Roll Tax	..	..	..	..	..	..	..	..	413 3 6	..	..	..	1,648 6 3	1,648 6 3
Administration	..	..	..	..	..	3,233 0 0	..	..	..	..	..	..	..	413 3 6
Firefighting and Patrol	..	..	..	..	..	..	..	..	..	..	..	..	..	3,233 0 0
Experiments	..	..	..	610 2 5	..	..	..	..	..	..	..	..	..	610 2 5
Drum Account	..	..	..	..	..	..	..	..	*Cr.* 307 11 0	..	..	..	..	*Cr.* 307 11 0
	..	8,971 5 6	..	610 2 5	78 2 8	35,698 13 9	3,156 13 3	1,946 12 5	21,063 3 10	7,772 14 5	3,743 16 2	6,208 12 2	1,648 6 3	90,898 2 10
FRASER ISLAND WORKING PLAN AREA.														
Reserve 3	131 5 0	1,406 4 4	..	..	97 11 4	1,856 19 6	489 8 8	258 4 1	1,753 5 0	962 14 5	313 16 4	565 18 0	..	7,835 6 8
Pay Roll Tax	..	..	..	..	..	..	..	..	156 4 4	..	..	..	157 11 9	157 11 9
Administration	..	..	..	..	..	60 7 9	..	..	..	..	..	..	..	156 4 4
Firefighting and Patrol	..	..	..	..	..	..	..	..	..	..	..	..	..	60 7 9
Experiments	..	..	..	193 16 7	..	..	..	..	39 13 0	..	..	..	..	193 16 7
Drum Account	..	..	..	..	..	..	..	..	..	..	..	..	..	39 13 0
	131 5 0	1,406 4 4	..	193 16 7	97 11 4	1,917 7 3	489 8 8	258 4 1	1,949 2 4	962 14 5	313 16 4	565 18 0	157 11 9	8,443 0 1

APPENDIX H—*continued.*

Reserves.	Reforestation.				Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay-Roll Tax.	Reserve Total.
	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.	Forest Experiment.					Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
GYMPIE WORKING PLAN AREA.														
Reserve 82/242 ..	7,667 1 2	..	922 0 3	..	6 0 3	1,385 3 9	448 16 9	202 3 3	5,008 8 6	2,080 15 9	87 14 6	975 8 0	..	19,683 12 2
Reserve 124	6,109 0 1	..	920 10 10	..	47 2 8	1,142 11 8	57 16 6	603 17 0	4,789 15 1	3,655 0 10	281 9 5	1,151 12 0	..	18,758 16 1
Reserve 234	..	..	..	..	15 3 7	2,234 16 3	48 9 7	58 3 10	1,484 18 3	782 8 4	4 12 10	271 4 0	..	4,899 16 8
Reserve 392	2,841 6 8	..	482 0 6	..	..	1,164 11 8	194 11 0	88 16 4	3,367 0 7	2,298 7 6	148 16 5	474 4 0	..	11,059 14 8
Reserve 393	..	..	..	..	1 8 0	1,486 8 1	30 8 0	430 17 9	2,828 3 5	1,636 3 6	115 4 3	468 4 0	..	6,996 17 0
Reserve 502	74 6 9	..	..	..	..	1,123 14 7	110 1 8	66 0 5	1,493 2 11	784 5 11	56 16 8	175 2 11	..	3,883 11 10
Reserve 627	..	..	..	..	..	1,277 16 3	8 3 10	..	1,402 1 5	966 17 10	19 12 0	78 0 0	..	3,752 11 4
Reserve 932	..	..	..	..	..	259 3 5	..	..	233 18 11	73 15 11	..	..	..	566 18 3
Reserve 952	18 0 10	..	31 12 6	..	347 13 6	2,992 12 8	100 6 3	16 2 5	2,899 0 11	1,663 6 0	54 12 8	276 4 0	..	8,399 11 9
Reserve 959	..	..	..	..	17 17 4	2,449 5 3	12 19 1	..	2,346 10 3	1,028 9 6	3 8 0	14 5 0	..	5,872 14 5
Reserve 963	..	..	..	..	..	440 10 3	20 7 2	3 9 4	278 17 4	141 14 2	..	1 12 0	..	886 10 3
Reserve 983	..	..	..	..	..	466 8 7	106 11 2	..	151 18 2	122 14 9	5 8 9	3 8 0	..	856 9 5
Reserve 997	..	..	..	..	3 3 1	619 18 9	69 19 9	56 13 3	224 8 11	31 18 1	..	1 4 0	..	1,007 5 10
Reserve 1004	17,821 7 2	..	1,851 15 6	..	2,780 6 6	10,948 19 9	502 13 4	2,825 6 8	11,948 19 10	5,295 10 1	109 15 0	2,511 12 0	..	56,596 5 10
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	3,093 1 11	3,093 1 11
Administration ..	..	..	..	..	..	..	..	..	2,630 19 1	..	..	..	..	2,630 19 1
Firefighting and Patrol	..	..	..	..	..	9,203 10 1	..	..	..	..	..	..	..	9,203 10 1
Experiments	..	..	..	360 16 10	..	..	..	..	..	..	..	..	..	360 16 10
Drum Account ..	..	..	..	..	..	..	..	..	*Cr.* 72 10 6	..	..	..	..	*Cr.* 72 10 6
	34,531 2 8	..	4,207 19 7	360 16 10	3,218 14 11	37,195 11 0	1,711 4 1	4,351 10 3	41,015 13 1	21,461 8 2	887 10 6	6,401 19 11	3,093 1 11	158,436 12 11
MARY VALLEY WORKING PLAN AREA.														
Reserve 135	31,340 13 7	..	1,660 10 9	..	631 9 4	5,634 19 6	3,268 4 5	1,234 2 0	19,577 6 1	11,934 3 4	222 14 3	5,174 16 0	..	80,678 19 3
Reserve 135/274 ..	8,140 18 8	..	792 14 1	..	124 1 3	1,089 8 8	295 0 5	862 16 0	4,565 2 0	3,061 15 2	..	1,496 4 0	..	20,428 0 3
Reserve 256	1,416 10 3	..	..	..	102 12 2	217 10 11	97 6 8	15 4 5	276 12 11	238 13 10	..	199 4 0	..	2,563 15 2
Reserve 435	13,443 13 10	..	1,115 12 10	..	19 9 0	2,718 6 1	955 12 1	444 4 11	9,740 19 8	5,198 16 3	295 16 4	2,715 0 0	..	36,647 11 0
Reserve 546	..	..	..	..	0 16 0	..	..	0 18 0	0 15 0	..	..	..	..	2 9 0
Reserve 918	..	..	..	..	199 6 5	..	..	..	..	..	..	..	..	199 6 5
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	3,126 5 10	3,126 5 10
Administration ..	..	..	..	..	..	..	..	..	1,123 19 4	..	..	..	..	1,123 19 4
Firefighting and Patrol	..	..	..	..	..	2,342 14 6	..	..	..	..	..	..	..	2,342 14 6
Experiments	..	..	..	2,869 8 3	..	..	..	..	..	..	..	..	..	2,869 8 3
	54,341 16 4	..	3,568 17 8	2,869 8 3	1,077 14 2	12,002 19 8	4,616 3 7	2,557 5 4	35,284 15 0	20,433 8 7	518 10 7	9,585 4 0	3,126 5 10	149,982 9 0

APPENDIX H—*continued.*

Reserves.	Reforestation.				Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay Roll Tax.	Reserve Total.
	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.	Forest Experiment.					Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
CLERMONT WORKING PLAN AREA.														
Reserve 117	..	491 10 9	..	..	..	212 15 3	..	796 18 3	616 10 2	235 5 8	84 10 6	171 17 0	..	2,609 7 7
Reserve 127	..	238 3 1	..	..	..	1,267 13 1	77 19 0	..	745 4 9	366 6 6	148 5 3	195 16 0	..	3,039 7 8
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	117 12 6	117 12 6
Administration	..	..	..	..	..	..	..	..	235 2 1	..	..	..	..	235 2 1
Firefighting and Patrol	..	..	..	..	..	435 15 0	..	..	..	..	..	..	..	435 15 0
Experiments	..	..	..	30 14 5	..	..	..	..	..	..	..	..	..	30 14 5
Surveys	..	..	..	..	7 19 0	..	..	..	..	..	..	..	..	7 19 0
	..	729 13 10	..	30 14 5	7 19 0	1,916 3 4	77 19 0	796 18 3	1,596 17 0	601 12 2	232 15 9	367 13 0	117 12 6	6,475 18 3
ROCKHAMPTON WORKING PLAN AREA.														
Reserve 20	8,039 13 8	..	1,916 2 3	..	834 14 9	5,881 12 2	150 12 2	387 17 4	3,406 11 0	2,602 14 4	324 7 0	1,128 16 0	..	24,673 0 8
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	506 19 11	506 19 11
Firefighting and Patrol	..	..	..	..	..	284 4 11	..	..	..	..	..	..	..	284 4 11
Administration	..	..	..	..	..	..	..	..	175 15 8	..	..	..	..	175 15 8
Experiments	..	..	..	599 9 8	..	..	..	..	..	..	..	..	..	599 9 8
Drum Account	..	..	..	..	..	..	..	..	*Cr.* 55 1 0	..	..	..	..	*Cr.* 55 1 0
Surveys, Miscellaneous	..	..	..	..	6 0 10	..	..	..	..	..	..	..	..	6 0 10
	8,039 13 8	..	1,916 2 3	599 9 8	840 15 7	6,165 17 1	150 12 2	387 17 4	3,527 5 8	2,602 14 4	324 7 0	1,128 16 0	506 19 11	26,190 10 8
MANY PEAKS WORKING PLAN AREA.														
Reserve 28	..	2,002 13 7	..	..	..	2,207 4 0	725 13 9	11 6 3	1,509 11 2	1,195 19 11	435 2 7	546 12 0	..	8,724 3 3
Reserve 67	1,716 12 7	..	770 11 1	..	244 3 0	756 10 7	68 18 0	842 11 2	1,928 17 11	1,327 11 5	243 2 7	653 17 0	..	8,552 15 4
Reserve 81	..	..	..	..	..	..	3 2 5	..	16 7 4	..	..	..	..	19 9 9
Reserve 95 &c.	9,067 18 11	..	1,789 6 7	..	367 4 11	1,516 18 8	2,067 9 1	1,553 16 1	6,548 12 6	3,437 19 9	30 4 11	1,862 15 0	..	28,242 6 5
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	953 1 0	953 1 0
Administration	..	..	..	..	..	..	..	..	141 4 1	..	..	..	..	141 4 1
Firefighting and Patrol	..	..	..	..	..	1,439 17 5	..	..	..	..	..	..	..	1,439 17 5
Experiments	..	..	..	11 16 0	..	..	..	..	..	..	..	..	..	11 16 0
Drum Account	..	..	..	..	..	..	..	..	*Cr.* 28 1 0	..	..	..	..	*Cr.* 28 1 0
	10,784 11 6	2,002 13 7	2,559 17 8	11 16 0	611 7 11	5,920 10 8	2,865 3 3	2,407 13 6	10,206 12 0	5,961 11 1	708 10 1	3,063 4 0	953 1 0	48,056 12 3
MARYBOROUGH WORKING PLAN AREA.														
Reserve 1	..	..	..	..	63 2 5	..	..	..	..	..	..	..	..	63 2 5
Reserve 8	..	584 2 4	..	..	32 5 3	665 9 8	200 15 1	182 9 3	1,261 7 7	285 11 10	111 9 1	201 4 0	..	3,524 14 1
Reserve 12	..	..	..	..	..	1,260 17 3	40 1 4	364 14 7	690 0 6	267 13 5	109 4 0	79 12 0	..	2,812 3 1
Reserve 27	..	199 4 2	..	..	3 17 5	870 4 11	45 9 11	329 2 4	1,519 15 8	458 6 10	20 2 3	232 4 0	..	3,678 7 6
Reserve 57	..	105 11 5	..	..	..	3,092 4 10	397 13 6	964 12 2	2,104 5 3	476 6 2	145 13 3	547 4 0	..	7,833 10 7
Reserve 301	..	..	..	..	5 6 10	..	..	..	..	..	..	..	..	5 6 10
Reserve 915	15,692 12 9	..	2,608 10 6	..	5,008 4 5	13,654 19 8	554 8 10	1,092 14 0	12,564 16 7	6,503 18 9	344 6 7	2,537 2 2	..	60,561 14 3
Reserve 958	..	..	..	..	6 4 10	1,848 2 2	24 7 2	2,005 3 8	1,275 14 3	405 4 1	27 14 11	58 12 0	..	5,651 3 1
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	1,766 5 6	1,766 5 6
Administration	..	..	..	..	..	..	..	..	2,711 5 0	..	..	..	..	2,711 5 0
Firefighting and Patrol	..	..	..	..	..	1,268 11 9	..	..	..	..	..	..	..	1,268 11 9
Experiments	..	..	..	1,041 3 5	..	..	..	..	..	..	..	..	..	1,041 3 5
Drum Account	..	..	..	..	..	..	..	..	*Cr.* 138 4 0	..	..	..	..	*Cr.* 138 4 0
	15,692 12 9	888 17 11	2,608 10 6	1,041 3 5	5,119 1 2	22,660 10 3	1,262 15 10	4,938 16 0	21,989 0 10	8,397 1 1	758 10 1	3,655 18 2	1,766 5 6	90,779 3 6

APPENDIX H—*continued.*

Reserves.	Reforestation.				Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay-Roll Tax.	Reserve Total.
	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.	Forest Experiment.					Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
BUNDABERG WORKING PLAN AREA.														
Reserve 67	..	..	..	..	0 12 0	..	..	..	..	..	..	..	..	0 12 0
Reserve 80	..	107 10 5	..	..	..	1,050 6 4	597 18 0	426 5 3	1,006 14 9	302 10 10	28 5 5	188 0 0	..	3,707 11 0
Reserve 169	..	..	..	..	23 4 9	1,196 15 0	84 2 0	..	1,088 9 5	345 6 5	69 14 3	253 12 0	..	3,061 3 10
Reserve 191/864	..	729 7 3	..	..	7 19 1	1,087 2 8	118 15 9	331 5 8	1,544 15 2	591 19 4	60 4 3	399 14 0	..	5,771 3 2
Reserve 278	..	608 16 5	..	..	..	651 3 6	89 17 1	153 8 1	869 4 0	298 13 1	33 2 10	258 16 0	..	2,963 1 0
Reserve 563	..	..	..	..	94 14 6	..	..	..	..	..	..	..	..	94 14 6
Reserve 832	..	823 15 11	..	..	203 7 3	1,499 2 10	70 7 9	512 1 10	1,211 13 0	561 17 1	60 0 0	322 8 0	..	5,264 13 8
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	300 16 0	300 16 0
Administration	..	..	..	..	..	..	..	..	242 1 3	..	..	..	..	242 1 3
Firefighting and Patrol	..	..	..	..	..	872 2 2	..	..	..	..	..	..	..	872 2 2
Experiments	..	..	..	503 2 4	..	..	..	..	..	..	..	..	..	503 2 4
	..	2,269 10 0	..	503 2 4	329 17 7	7,256 12 6	961 0 7	1,423 0 10	5,962 17 7	2,100 6 9	251 6 9	1,422 10 0	300 16 0	22,781 0 11
KILKIVAN WORKING PLAN AREA.														
Reserve 24	..	490 16 9	..	..	..	1,298 9 9	58 14 4	532 5 0	784 10 5	473 8 0	44 3 4	175 0 0	..	3,857 7 7
Reserve 26	..	..	..	..	..	3 9 6	..	..	1 16 1	12 15 0	..	3 8 0	..	21 8 7
Reserve 67	..	..	..	..	..	41 10 0	..	..	4 6 9	5 14 8	..	2 16 0	..	54 7 5
Reserve 74	..	..	..	..	..	77 13 0	..	..	8 9 1	..	4 3 1	2 16 0	..	93 1 2
Reserve 97/9	2,787 6 0	..	..	..	..	607 3 6	50 17 9	226 2 3	1,504 11 1	1,195 8 7	192 9 10	659 16 0	..	7,223 15 0
Reserve 127	..	..	..	..	..	7 4 8	..	..	0 10 6	..	..	..	..	7 15 2
Reserve 138	831 6 9	..	..	..	..	411 7 8	..	..	437 17 11	156 12 1	..	12 0 0	..	1,849 4 5
Reserve 154	3,265 12 9	..	803 7 5	..	48 16 9	664 7 8	139 19 8	345 5 11	2,445 18 11	1,083 9 9	99 2 4	652 12 0	..	9,548 13 2
Reserve 220	2,404 3 3	..	..	..	11 3 9	803 7 10	56 13 0	59 19 7	1,828 15 5	842 18 2	181 17 1	431 16 0	..	6,620 14 1
Reserve 221	..	..	..	..	..	154 3 4	18 0 4	..	86 8 2	22 1 11	..	11 16 0	..	292 9 9
Reserve 298	8,456 18 5	..	1,455 9 6	..	263 2 8	1,219 14 10	538 19 10	1,224 7 6	5,020 17 6	3,375 18 7	355 0 11	2,129 12 0	..	24,049 1 9
Reserve 355	90 4 4	..	..	..	..	293 2 2	..	..	91 0 7	31 16 1	45 14 4	17 12 0	..	569 9 6
Reserve 410	..	..	..	..	..	..	..	..	3 1 10	..	..	..	..	3 1 10
Reserve 424	..	..	..	..	..	304 7 1	14 5 8	25 17 8	137 10 10	53 2 7	191 5 0	42 8 0	..	768 16 10
Reserve 427	..	..	1,020 9 7	..	..	55 11 4	216 7 3	101 18 0	740 5 4	679 18 8	196 0 1	298 0 0	..	3,308 10 3
Reserve 502	..	..	..	..	..	34 16 7	..	..	8 2 6	..	0 12 7	3 4 0	..	46 15 8
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	1,275 14 7	1,275 14 7
Administration	..	..	..	..	..	..	..	..	1,044 15 8	..	..	..	..	1,044 15 8
Firefighting and Patrol	..	..	..	..	..	858 16 0	..	..	..	..	..	..	..	858 16 0
Experiments	..	..	..	49 7 7	..	..	..	..	..	..	..	..	..	49 7 7
Kilkivan Office	..	..	..	..	..	..	13 5 11	..	..	..	..	..	..	13 5 11
	17,835 11 6	490 16 9	3,279 6 6	49 7 7	323 3 2	6,835 4 11	1,107 3 9	2,515 15 11	14,157 18 7	7,033 4 1	1,310 8 7	4,442 16 0	1,275 14 7	61,556 11 11
NORTH QUEENSLAND WORKING PLAN AREA.														
Reserve 99	..	661 0 11	..	..	4 5 5	..	2 13 6	1,174 1 9	446 6 7	440 6 8	57 1 3	152 10 3	..	2,938 6 4
Reserve 185	118 13 5	165 11 10	..	..	..	71 1 3	20 4 5	..	134 3 5	116 10 7	2 10 0	49 16 0	..	678 10 11
Reserve 191	217 1 2	178 15 10	526 7 9	..	..	78 18 11	212 13 2	9 14 3	252 8 0	491 15 5	11 8 4	103 0 0	..	2,082 2 10
Reserve 194	..	..	..	..	..	5 1 2	..	..	1 19 11	..	..	..	..	7 1 1
Reserve 310	149 0 9	219 5 9	..	..	13 1 9	182 3 2	20 2 5	..	313 3 1	164 14 5	6 11 0	72 8 0	..	1,140 10 4
Reserve 315	..	..	..	..	..	..	..	..	53 18 4	..	3 3 0	..	..	57 1 4
Reserve 438	..	482 14 6	..	..	1 5 10	511 19 11	385 17 1	36 13 10	1,007 18 3	387 9 3	55 9 1	35 7 11	..	2,904 15 8
Reserve 456	..	..	..	..	..	..	..	..	8 0 10	..	..	..	..	8 0 10
Reserve 461	..	574 1 5	..	..	20 15 4	531 15 8	61 9 6	5 5 10	325 12 3	421 4 1	121 18 7	132 8 0	..	2,194 10 8
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	265 2 8	265 2 8
Administration	..	..	..	..	..	..	..	..	573 9 1	..	..	..	..	573 9 1
Firefighting and Patrol	..	..	..	..	..	440 17 4	..	..	..	..	..	..	..	440 17 4
Experiments	..	..	..	1,990 11 0	..	..	..	..	..	..	..	..	..	1,990 11 0
Drum Account	..	..	..	..	..	..	..	..	Cr. 53 2 6	..	..	..	..	Cr. 53 2 6
	484 15 4	2,281 10 3	526 7 9	1,990 11 0	39 8 4	1,821 17 5	703 0 1	1,225 15 8	3,063 17 3	2,022 0 5	258 1 3	545 10 2	265 2 8	15,227 17 7

APPENDIX H—*continued.*

Reserves.	Reforestation.				Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay-Roll Tax.	Reserve Total.
	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.	Forest Experiment.					Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
WARWICK WORKING PLAN AREA.														
Reserve 263	3,681 15 8	..	1,130 0 5	..	16 13 7	3,419 16 2	276 18 7	231 17 9	1,843 15 4	1,226 17 4	135 16 11	676 8 0	..	12,639 19 9
Reserve 316	1,206 5 3	..	..	..	..	1,646 0 5	240 19 9	889 4 1	626 17 7	583 8 4	..	249 4 0	..	5,441 19 5
Reserve 444	..	..	..	..	..	216 2 3	13 2 2	1 13 5	304 8 9	95 19 9	75 10 3	1 0 0	..	707 16 7
Reserve 574	..	440 4 8	..	..	..	810 15 5	83 2 3	61 12 9	664 13 11	218 9 3	80 15 9	107 8 0	..	2,467 2 0
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	434 10 5	434 10 5
Administration	..	..	..	..	..	..	..	..	751 10 7	..	..	..	..	751 10 7
Firefighting and Patrol	..	..	..	..	..	665 16 8	..	..	..	..	..	..	..	665 16 8
Experiments	..	..	..	286 5 1	..	..	..	..	..	..	..	..	..	286 5 1
Drum Account	..	..	..	..	..	..	..	..	*Cr.* 49 1 0	..	..	..	..	*Cr.* 49 1 0
	4,888 0 11	440 4 8	1,130 0 5	286 5 1	16 13 7	6,758 10 11	614 2 9	1,184 8 0	4,142 5 2	2,124 14 8	292 2 11	1,034 0 0	434 10 5	23,345 19 6
INGLEWOOD WORKING PLAN AREA.														
Reserve 48	..	613 4 0	..	..	..	335 16 5	..	61 2 11	322 10 4	134 7 4	244 4 2	100 8 0	..	1,811 13 2
Reserve 79	..	641 8 8	..	..	..	1,667 10 7	26 16 2	83 17 9	1,043 17 8	436 8 10	221 11 0	287 4 0	..	4,408 14 8
Reserve 81	..	1,100 17 4	..	..	..	699 13 10	54 11 6	125 16 8	967 18 3	452 8 7	209 11 0	327 4 0	..	3,938 1 2
Reserve 101	..	341 7 6	..	..	..	418 8 3	38 12 6	41 7 3	356 11 7	124 3 5	95 10 0	58 12 0	..	1,474 12 6
Reserve 120	..	..	..	..	..	63 4 0	..	..	6 11 3	..	..	5 8 0	..	75 3 3
Reserve 122	..	575 12 6	..	..	..	2,337 19 4	55 8 2	40 7 3	726 5 5	261 8 9	82 9 2	216 8 0	..	4,295 18 7
Reserve 132	..	..	..	..	..	24 19 10	..	..	12 7 2	..	..	2 16 0	..	40 3 0
Reserve 134	..	519 8 8	..	..	..	664 16 5	46 1 10	..	461 13 11	282 15 8	86 19 4	172 16 0	..	2,234 11 10
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	404 2 9	404 2 9
Administration	..	..	..	..	..	..	..	..	538 17 11	..	..	..	..	538 17 11
Firefighting and Patrol	..	..	..	..	..	2,651 10 1	..	..	..	..	..	..	..	2,651 10 1
Experiments	..	..	..	11 0 7	..	..	..	..	..	..	..	..	..	11 0 7
	..	3,791 18 8	..	11 0 7	..	8,863 18 9	221 10 2	352 11 10	4,436 13 6	1,691 12 7	940 4 8	1,170 16 0	404 2 9	21,884 9 6
MISCELLANEOUS.														
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	1,088 1 3	1,088 1 3
Experiments	..	..	..	116 7 11	..	..	..	..	..	..	..	..	..	116 7 11
Radio Equipment	..	..	..	..	..	539 7 9	..	..	..	..	..	..	..	539 7 9
Nursery—Salisbury	..	..	..	..	..	..	..	77 4 9	..	..	..	..	..	77 4 9
Storeroom Expenses	..	..	..	..	..	..	..	..	2,532 8 11	..	..	..	..	2,532 8 11
Depot Stock—Salisbury	..	..	..	..	..	..	..	..	*Cr.*20,063 5 7	..	..	..	..	*Cr.*20,063 5 7
Aerial Photography—Maps, &c.	..	..	..	..	841 10 7	..	..	..	..	..	..	..	..	841 10 7
	..	..	..	116 7 11	841 10 7	539 7 9	..	77 4 9	*Cr.*17,530 16 8	..	..	..	1,088 1 3	*Cr.*14,868 4 5
Totals	229,250 3 6	25,014 17 11	36,519 9 0	16,044 1 1	17,929 17 9	229,883 1 3	28,342 19 9	33,501 5 9	225,355 9 5	123,261 16 2	12,214 11 2	55,871 18 2	21,127 19 2	1,054,317 10 1

	£ s. d.
Administration	1,609 16 8
Fares and Freights	7,675 19 0
Collection and Storage of Seed	7,120 10 11
Workers' Compensation	25,571 13 5
	1,096,295 10 1

SOURCES OF FUNDS.

	£ s. d.
Revenue	8,916 11 5
Loan	1,059,000 0 0
Trust	28,378 18 8
	1,096,295 10 1

APPENDIX I.

Net Area of Plantation Established 1st April, 1953, to 31st March, 1954.

Species.	Brisbane.	Brisbane Valley.	Gympie.	Mackay.	Maryborough.	Monto.	Warwick.	Queensland Totals.
	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.
Softwoods.								
A. Native Conifers—								
Hoop Pine	65·6	430·3	566·7	..	104·5	109·5	..	1,276·6
Kauri Pine	..	..	12·0	..	..	..	..	12·0
Bunya Pine	1·0	..	25·0	..	..	..	..	26·0
B. Exotic Conifers—								
P. caribaea	1,086·0	..	762·8	338·0	1,164·2	..	..	3,351·0
P. taeda	13·0	..	..	4·4	..	..	..	17·4
P. patula	26·9	200·6	..	..	12·5	14·6	..	254·6
P. radiata	..	..	..	..	..	..	85·5	85·5
Others	15·0	..	..	33·6	0·8	..	3·6	53·0
C. Broadleaved Softwoods—								
Maple	..	..	10·0	..	..	..	..	10·0
Others	..	..	3·0	..	..	..	..	3·0
Total—Softwoods	1,207·5	630·9	1,379·5	376·0	1,282·0	124·1	89·1	5,089·1
Eucalypts.								
Euc. Saligna	..	..	..	..	..	..	..	Nil
Other Eucalypts	..	..	2·5	..	..	..	..	2·5
Total Eucalypts	..	..	2·5	..	..	..	..	2·5
Total—All Species	1,207·5	630·9	1,382·0	376·0	1,282·0	124·1	89·1	5,091·6

APPENDIX J.

Net Area of Effective Plantation Classified into Forestry Districts to 31st March, 1954.

Species.	North Queensland.	Brisbane.	Brisbane Valley.	Gympie.	Mackay.	Maryborough.	Monto.	Warwick.	Fraser Island.	Queensland Totals.
	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.
Softwoods.										
A. Native Conifers										
Hoop Pine	574·2	2,108·5	12,390·1	12,814·9	15·4	4,081·2	1,673·7	..	126·1	33,784·1
Kauri Pine	285·0	1·7	..	1,460·6	0·7	..	..	..	69·7	1,817·7
Bunya Pine	0·3	21·8	8·0	242·4	1·7	14·8	..	..	0·7	289·7
Others	0·6	4·6	0·4	45·4	0·6	1·1	..	..	0·6	53·3
B. Exotic Conifers										
P. caribaea	7·8	6,245·3	962·4	2,636·3	953·8	3,120·2	62·3	422·8	6·7	14,417·6
P. taeda	13·7	3,211·6	41·4	102·1	9·8	84·9	1·0	220·7	2·4	3,687·6
P. patula	44·1	60·3	2,186·4	22·2	7·6	86·0	22·5	637·1	3·4	3,069·6
P. radiata	..	..	98·5	..	..	..	..	386·8	..	485·3
P. palustris	..	245·6	2·6	1·2	1·1	0·5	..	8·2	..	259·2
Others	8·1	64·2	20·6	15·1	101·3	12·8	1·0	23·9	6·8	253·8
C. Broadleaved Softwoods										
Silky Oak	31·7	..	675·5	175·9	..	32·1	..	..	..	915·2
Maple	202·3	..	..	43·0	..	..	..	..	..	245·3
Others	114·4	0·1	..	88·8	..	1·2	1·1	..	0·4	206·0
Total Softwoods	1,282·2	11,963·7	16,385·9	17,647·9	1,092·0	7,434·8	1,761·6	1,699·5	216·8	59,484·4
Eucalypts.										
Euc. saligna	0·7	36·2	215·7	908·2	..	35·2	..	..	..	1,196·0
Euc. paniculata	35·6	228·3	459·3	216·2	..	75·3	..	..	..	1,014·7
Euc. microcorys	27·7	215·4	28·7	17·5	..	..	..	..	..	289·3
Euc. pilularis	0·2	160·9	..	..	..	..	..	..	..	161·1
Other Eucalypts	4·0	17·0	12·7	74·5	..	..	..	..	..	108·2
Total Eucalypts	68·2	657·8	716·4	1,216·4	..	110·5	..	..	..	2,769·3
Total All Species	1,350·4	12,621·5	17,102·3	18,864·3	1,092·0	7,545·3	1,761·6	1,699·5	216·8	62,253·7

APPENDIX K.

Net Area of Plantation Effective at 31st March, 1954, Classified into Five-yearly Establishment Periods.

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

Species.	1920 and Earlier.	1921-25	1926-30.	1931-35.	1936-40.	1941-45.	1946-50.	1951-53.	Total.
	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.
Softwoods.									
A. Native Conifers—									
Hoop Pine ..	21·0	184·5	1,784·5	4,320·5	9,611·6	2,238·7	10,714·0	4,909·3	33,784·1
Kauri Pine ..	7·1	55·0	18·7	125·2	1,137·5	237·4	224·8	12·0	1,817·7
Bunya Pine ..	6·0	28·8	74·8	0·9	123·9	..	2·3	53·0	289·7
Others	..	3·7	42·6	2·4	4·6	..	..	..	53·3
B. Exotic Conifers—									
P. caribaea ..	..	6·7	48·1	2,032·6	1,135·8	506·5	3,669·3	7,018·6	14,417·6
P. taeda	..	..	32·5	561·3	550·1	453·0	1,284·7	806·0	3,687·6
P. patula	..	1·0	21·0	160·1	472·4	189·0	1,385·4	840·7	3,069·6
P. radiata ..	..	0·4	67·8	151·9	1·9	..	131·5	131·8	485·3
P. palustris ..	..	..	0·2	28·1	108·7	44·1	45·8	32·3	259·2
Others	..	1·6	18·8	37·4	20·5	1·0	49·4	125·1	253·8
C. Broadleaved Softwoods—									
Silky Oak	..	3·1	538·8	286·7	86·6	..	..	..	915·2
Maple	0·8	11·9	49·1	93·6	63·4	..	14·0	12·5	245·3
Others	9·7	14·7	110·0	36·8	6·3	9·3	1·7	17·5	206·0
Total—Softwoods..	44·6	311·4	2,806·9	7,837·5	13,323·3	3,679·0	17,522·9	13,958·8	59,484·4
Eucalypts.									
Euc. saligna	..	..	1·0	1·2	145·0	129·3	782·0	137·5	1,196·0
Euc. paniculata ..	..	..	1·4	532·1	402·1	77·3	1·8	..	1,014·7
Euc. microcorys ..	..	..	5·3	90·0	194·0	..	..	..	289·3
Euc. pilularis	..	..	0·2	97·9	56·9	..	6·1	..	161·1
Other Eucalypts ..	..	..	0·5	6·4	22·7	9·4	39·7	29·5	108·2
Total—Eucalypts ..	..	..	8·4	727·6	820·7	216	829·6	167·0	2,769·3
Total—All Species ..	44·6	311·4	2,815·3	8,565·1	14,144·0	3,895·0	18,352·5	14,125·8	62,253·7

APPENDIX L.

Areas of Natural Forest Treated.

Working Plan Area.	Reserve No.	Eucalypts. (Acres.)			Softwoods. (Acres.)			Other Species. (Acres.)			All Species. (Acres.)
		Treated 1953–54.	First Treatment 1953–54.	Total as at 30th June, 1954.	Treated 1953–54.	First Treatment 1953–54.	Total as at 30th June, 1954.	Treated 1953–54.	First Treatment 1953–54.	Total as at 30th June 1954.	Total as at 30th June, 1954.
Brisbane	69	..	..	1,535	..	..	..	..	..	..	1,535
	1,376	..	..	1,450	..	..	..	..	..	..	1,450
	215	250	..	925	..	..	..	..	..	..	925
	702	..	..	2,060	..	..	..	..	..	..	2,060
	494	..	..	934	..	..	..	..	..	..	934
	446	..	..	1,094	..	..	..	..	..	..	1,094
	667	68	..	914	..	..	..	..	..	..	914
	309	103	103	3,073	..	..	..	..	..	..	3,073
	1,355	..	..	1,625	..	..	..	..	..	..	1,625
	727	76	76	976	..	..	..	..	..	..	976
	..	497	179	14,586	..	..	..	..	..	..	14,586
Brisbane Valley and Nanango	283	..	..	1,880	..	..	..	..	..	40	1,920
	257	..	..	125	..	..	..	..	..	66	191
	299	..	..	50	..	..	..	..	..	..	50
	527/8/9	481	..	5,386	..	..	..	..	..	..	5,386
	..	481	..	7,441	..	..	..	..	..	106	7,547
Bundaberg	169	..	..	..	..	..	9,902	..	..	..	9,902
	80	146	146	9,206	..	..	..	..	..	..	9,206
	191/864	1,000	650	13,155	..	..	..	..	..	..	13,155
	723	..	..	564	..	..	..	..	..	..	564
	832/837	1,088	911	14,344	..	..	..	..	..	..	14,344
	278	..	..	..	221	221	221	..	..	..	221
	..	2,234	1,707	37,269	221	221	10,123	..	..	..	47,392
Clermont	117	1,484	..	10,820	..	..	..	..	..	..	10,820
	127	564	564	18,934	..	..	..	..	..	..	18,934
	..	2,048	564	29,754	..	..	..	..	..	..	29,754
Dalby	93	1,527	1,527	17,992	..	..	1,928	..	..	..	19,920
	4	85	85	11,063	..	..	280	..	..	..	11,343
	83	..	..	4,876	..	..	..	..	..	..	4,876
	78 &c.	..	..	1,130	5,158	4,777	52,022	..	..	..	53,152
	34	..	..	1,270	..	..	2,496	..	..	..	3,766
	150	..	..	..	..	..	6,244	..	..	..	6,244
	16 M.	113	113	6,576	904	904	25,225	..	..	..	31,801
	127	..	..	..	..	..	710	..	..	..	710
	126/135	..	..	..	290	..	3,700	..	..	..	3,700
	154	..	..	..	1,540	1,263	26,802	..	..	..	26,802
	155	..	..	..	43	43	2,288	..	..	..	2,288
	16B	..	..	2,004	..	..	..	..	..	..	2,004
	106	6	6	1,029	49	49	67	..	..	..	1,096
	..	1,731	1,731	45,940	7,984	7,036	121,762	..	..	..	167,702
Fraser Island ..	3	564	305	18,157	31	..	4,374	..	..	..	22,531
Gympie	393	..	..	3,020	..	..	..	..	..	..	3,020
	234	..	..	1,730	..	..	..	..	..	..	1,730
	502	..	..	1,568	..	..	..	..	..	..	1,568
	627	..	..	2,423	..	..	..	..	..	..	2,423
	700	..	..	3,672	..	..	..	..	..	..	3,672
	124	..	..	770	..	..	..	..	..	..	770
	959	..	..	965	..	..	..	..	..	..	965
	950/1	..	..	1,135	..	..	..	..	..	..	1,135
	..	..	..	15,283	..	..	..	..	..	..	15,283
Inglewood	79	..	..	..	612	612	31,525	..	..	..	31,525
	122	..	..	..	360	..	18,300	..	..	..	18,300
	101	..	..	8,512	190	..	540	..	..	..	9,052
	134	..	..	..	558	..	14,790	..	..	..	14,790
	81	258	..	7,490	529	529	5,149	..	..	..	12,639
	48	..	..	..	434	434	4,399	..	..	..	4,399
	132	..	..	207	..	..	..	..	..	..	207
	120	..	..	298	..	..	515	..	..	..	813
	..	258	..	16,507	2,683	1,575	75,218	..	..	..	91,725
Kilcoy	370	..	..	3,210	..	..	..	..	..	..	3,210
	893	105	105	3,195	..	..	..	..	..	..	3,195
	637	..	..	1,168	..	..	..	..	..	..	1,168
	..	105	105	7,573	..	..	..	..	..	..	7,573

APPENDIX L.—*continued.*

Areas of Natural Forest Treated—*continued.*

Working Plan Area.	Reserve No.	Eucalypts. (Acres.)			Softwoods. (Acres.)			Other Species. (Acres.)			All Species. (Acres.)
		Treated 1953–54.	First Treatment 1953–54.	Total as at 30th June, 1954.	Treated 1953–54.	First Treatment 1953–54.	Total as at 30th June, 1954.	Treated 1953–54.	First Treatment 1953–54.	Total as at 30th June, 1954.	Total as at 30th June, 1954.
Kilkivan	221	..	..	1,922	..	..	..	..	..	..	1,922
	12/24	713	713	14,984	..	..	..	..	..	..	14,984
	424/7	..	..	80	..	..	..	..	..	..	80
	..	713	713	16,986	..	..	..	..	..	..	16,986
Many Peaks ..	28	2,114	8	6,752	..	..	..	..	..	..	6,752
	150	..	..	1,811	..	..	..	..	..	..	1,811
	..	2,114	8	8,563	..	..	..	..	..	..	8,563
Maryborough ..	958	..	..	15,926	..	..	..	..	..	..	15,926
	57	650	650	23,720	..	..	..	..	..	..	23,720
	12	..	..	5,426	..	..	..	..	..	..	5,426
	8	736	..	14,483	..	..	..	..	..	..	14,483
	27	280	..	7,050	..	..	..	..	..	..	7,050
	1	..	..	1,632	..	..	..	..	..	..	1,632
	..	1,666	650	68,237	..	..	..	..	..	..	68,237
Mary Valley ..	135	..	..	159	..	..	..	..	..	..	159
North Coast ..	318	..	..	8,910	..	..	..	..	..	..	8,910
	445										
	583										
	313	..	..	1,650	..	..	..	..	..	..	1,650
	249	..	..	1,050	..	..	..	..	..	..	1,050
	60	..	..	1,380	..	..	..	..	..	..	1,380
	108	22	22	1,772	..	..	..	..	..	..	1,772
	173	..	..	3,135	..	..	..	..	..	..	3,135
	531	..	..	200	..	..	..	..	..	..	200
	351	..	..	580	..	..	..	..	..	..	580
	689	..	..	340	..	..	..	..	..	..	340
	..	22	22	19,017	..	..	..	..	..	..	19,017
North Queensland ..	99	..	..	..	..	..	..	228	228	253	253
	191	..	..	..	..	..	..	23	23	76	76
	194	..	..	175	..	..	..	..	..	..	175
	310	..	..	..	..	..	..	50	50	178	178
	418	..	..	..	..	..	..	..	..	43	43
	452	..	..	..	..	..	..	..	..	20	20
	245	..	..	339	..	..	..	..	..	..	339
	243	..	..	1,457	..	..	..	..	..	..	1,457
	185	..	..	..	..	..	..	90	..	279	279
	438	710	..	1,577	..	..	..	..	..	..	1,577
	343	..	..	200	..	..	..	..	..	..	200
	461	968	968	968	..	..	..	..	..	..	968
	..	1,678	968	4,716	..	..	..	391	301	849	5,565
Warwick	444	..	..	4,360	..	..	..	..	..	..	4,360
	574	500	500	4,730	..	..	..	..	..	..	4,730
	..	500	500	9,090	..	..	..	..	..	..	9,090
Grand Totals ..	..	14,611	7,452	319,278	10,919	8,832	211,477	391	301	955	531,710

APPENDIX M.

Summary of Forest Survey Work—Year Ended 30th June, 1954.

Reserve or Portion.	Parish.	Area in Acres.
Class 1.—Inspections of Vacant Crown Lands and Timber Reserves.		
Bayfield Holding	Bayfield	19,200
Portions 14, 15, 17	Sirius	21,464
Reserve 13, Portions 4, 8, 11	Cairdbeign	19,711
Portion 4	Aldebaran	7,402
Portions 24v, 26v	Redcliffe	319
	Total	68,096
Class 2.—Assessment Surveys.		
Moorilla Holding	Aldebaran (proceeding)	..
Deepdale Holding	Freitag (proceeding)	..
Dunsmure	Dunsmure	1,100
Stephens	Winchester	12,554
Cherwell, Eldin, Headborough	Heyford, Winchester	23,000
Portions 760, 762	Beerwah	60
Timber Reserve 563 (part)	Electra	7,860
Portions 26v, 31v	Yabba	6,317
Timber Reserve 274 (part)	Cambroon (Summer)	1,688
State Forest 918	Maleny	..
	Total	52,579
Class 3.—Intensive Contour and Assessment Survey.		
State Forest 41 (part)	Herberton and Western	2,000
State Forest 185, 772	Danbulla (road survey)	..
State Forest 310	Gadgarra (road survey)	..
Portions 142, 143	Bellenden Ker (road survey)	..
Timber Reserve 756	Jordan (road survey)	..
State Forest 959	Tewantin (road survey)	..
State Forest 1004	Toolara (Theodolite control)	..
	Total	2,000

Compartment, Firebreak and Soil Surveys.

Reserve.	Parish.	Type.	Area in Acres.
915	Bidwell, Tahiti	Soil	8,048
1004	Toolara	Soil	8,000
611	Beerwah (part)	Compartment	3,000
638	Beerwah (part)	Check	..
589	Beerwah (part)	Check	..
563	Grégory (part)	Soil	3,480
20	Maryvale	Compartment	3,512
298	Gallangowan	Re-survey	750
135	Brooloo, Cambroon	Firebreak	820
256	Imbil	Firebreak	40
274	Cambroon	Firebreak	287
124	Glastonbury	Firebreak	183
242	Widgee	Firebreak	80
95	New Cannindah	Miscellaneous	..
67	Bulburin	Miscellaneous	..
107	Minerva	Miscellaneous	..
207	Monsildale	Firebreak	..
289	Cooyar	Firebreak and Compartments	..
283	Colinton	Compartments	..
258	Cooyar	Firebreaks, &c.	..
120	Neumgna	Firebreaks, &c.	..
151	Neumgna	Firebreaks, &c.	..
527	Deongwar	Firebreaks, &c.	..
257	Cooyar	Firebreaks, &c.	..
379	Cooyar	Firebreaks, &c.	..
299	Avoca	Firebreaks, &c.	..
316	Cooyar	Firebreaks, &c.	..
1004	Toolara	Compartment	387
		Total	28,587

APPENDIX M.—*continued.*

FOREST INVENTORY SURVEY.

Reserve.	Parish.	Area in Acres.
155	Durabilla (part)	23,700
60	Tchanning (part)	7,800
184	Stretchworth, Halliford (completed)	..
4	Braemar (proceeding)	6,100
4	Weranga	4,200
393	Woondum (part)	8,342
445	Kenilworth (part)	4,900
572	Kenilworth (part)	5,100
151	Neumgna (part)	53
234	Tuchekoi	2,627
502	Gympie	2,947
60, 58	Tchanning—Re-measure	..
78, 328	Yuleba—Re-measure	..
958	Gundiah—Re-measure	..
57	St. Mary—Re-measure incomplete	..
256	Imbil—Re-measure	..
435	Kandanga—Re-measure	..
124	Glastonbury—Re-measure	..
135	Brooloo—Re-measure	..
274	Cambroon—Re-measure	..
392	Como—Re-measure	..
120	Neumgna—Re-measure	..
289	Cooyar—Re-measure	..
149, 299	Avoca—Re-measure	..
257	Cooyar—Re-measure	..
	Total	65,769

APPENDIX N.

State Forests, Timber Reserves, and National Parks at 30th June, 1954.

Land Agent's District.	State Forests.			Timber Reserves.			National Parks.		
	No.	Area.		No.	Area.		No.	Area.	
		A.	R. P.		A.	R. P.		A.	R. P.
Atherton	14	65,540	0 3	7	46,469	2 26	6	3,565	3 34
Bowen	..	..		7	90,880	0 0	36	118,587	0 0
Brisbane	68	235,535	3 33	44	69,418	1 13	38	77,684	2 22
Bundaberg	20	139,990	0 15	38	175,607	1 24	..	..	
Cairns	7	118,859	0 36	15	486,793	2 0	20	92,300	3 24
Charleville	..	..		2	68,397	0 0	..	..	
Charters Towers	..	..		1	125,000	0 0	..	..	
Clermont	3	132,378	3 35	3	45,324	1 0	..	..	
Cloncurry	..	..		1	3,950	0 0	..	..	
Cooktown	..	..		8	623,460	0 0	7	10,691	0 0
Dalby	27	1,020,697	2 19	4	16,359	0 0	1	13,100	0 0
Gayndah	2	38,639	0 0	14	48,693	0 27	..	..	
Gladstone	5	35,605	0 0	26	88,446	1 14	4	230	0 0
Goondiwindi	5	149,979	1 0	6	41,894	2 20	..	..	
Gympie	48	427,447	1 13	15	67,680	0 21	5	922	2 7
Herberton	10	75,343	3 29	11	76,635	1 7	5	3,361	3 28
Ingham	1	43,620	0 0	3	59,340	0 0	4	18,495	0 0
Inglewood	15	185,942	3 35	4	8,407	1 8	..	..	
Innisfail	2	65,167	0 0	12	364,643	2 18	23	106,807	1 31
Ipswich	33	169,748	1 34	24	67,765	2 33·2	4	5,339	0 0
Jundah	..	..		1	25,600	0 0	..	..	
Mackay	1	19,855	0 0	19	148,193	3 0	53	149,085	2 29
Maryborough	59	697,197	2 28	25	30,461	0 13	4	8,185	0 0
Monto	10	196,227	3 20	11	75,042	2 32·6	..	..	
Nanango	45	221,969	2 34	12	8,157	0 19	2	11,116	1 18
Rockhampton	8	183,053	1 0	17	140,538	1 22	15	2,597	0 0
Roma	11	128,234	3 22	1	8,600	0 0	..	..	
Springsure	..	..		5	115,888	1 0	1	65,000	0 0
Stanthorpe	2	10,920	0 0	..	..		6	12,604	3 0
Taroom	3	22,186	0 0	5	48,864	2 0	1	11,400	0 0
Toowoomba	22	259,524	0 2	16	29,629	1 15	5	3,214	3 0
Townsville	1	23,123	0 0	2	17,199	1 31	2	64,260	0 0
Total	422	4,666,786	0 38	359	3,223,339	3 23·8	242	778,548	3 33

At 30th June, 1954—	A	R.	P.
Total area reserved for—			
State Forests	4,666,786	0	38
Timber Reserves	3,223,339	3	23·8
National Parks	778,548	3	33
Total Reservations	8,668,675	0	14·8

APPENDIX O.

Reservations for the Year Ended 30th June, 1954.

State Forests.—Four (4) new State Forests with a total of 66,898 acres were proclaimed during the year. These are as follows :—

Acres.		Land Agent's District.
43,685	Reserve 132, Brovinia, Weir Weir, &c.	Nanango and Gayndah
10,570	Reserve 591, Conondale	Brisbane
6,683	Reserve 381, Wonbah	Bundaberg
5,960	Reserve 145, Copperfield	Clermont

2,689 acres were added to existing reserves.

Timber Reserves.—At 30th June, 1954, the number of Timber Reserves was 359, compared with 361 at 30th June, 1953.

Six (6) new areas, with a total of 28,126 acres, were reserved, the largest being :—

Acres.		Land Agent's District.
13,737	Reserve 77, Currieside and Koko	Gayndah and Dalby
9,012	Reserve 216, Aranbanga and Barabara	Gayndah
3,203	Reserve 241, Baywulla	Bundaberg
1,824	Reserve 595, Talgai	Toowoomba

2,964 acres were added to existing reserves.

Seven (7) reserves, totalling 49,163 acres, were converted to State Forests, and 9,500 acres to National Park. 2,744 acres were released.

National Parks.—Four (4) new areas, totalling 11,433 acres, were proclaimed, the largest being 11,400 acres, Reserve 3, Cannon (Robinson Gorge) Taroom Land Agent's District. 1,856 acres were added to existing reserves, and three (3) reserves were rescinded for inclusion in adjoining National Parks.

1st JULY, 1953, TO 30th JUNE, 1954.

State Forests.

	No.	A.	R.	P.
At 1st July, 1953	418	4,597,198	3	15
Proclaimed 1-7-53 to 30-6-54	4	66,898	0	5
V.C.L. added to existing reserves	..	2,623	0	0
Recomputation of boundaries	..	66	1	18
Total at 30th June, 1954	422	4,666,786	0	38

Timber Reserves.

At 1st July, 1953	361	3,253,656	1	39·8
Proclaimed 1-7-53 to 30-6-54	6	28,126	1	12
V.C.L. added to existing reserves	..	2,964	0	0
	367	3,284,746	3	11·8
	A. R. P.			
7 reserves converted to State Forests	49,162 2 11			
Area converted to National Park	9,500 0 0			
1 reserve cancelled and areas released	2,744 1 17			
8	8	61,406	3	28
Total at 30th June, 1954	359	3,223,339	3	23·8

National Parks.

At 1st July, 1953	241	765,259	2	20
Proclaimed 1-7-53 to 30-6-54	4	11,433	1	34
V.C.L. added to existing reserves	..	399	1	11
Recomputation of boundaries	..	1,456	2	8
	245			
Reserves included in adjoining National Parks	3			
Total at 30th June, 1954	242	778,548	3	33
Total reservations at 30th June, 1954	..	8,668,675	0	14·8

APPENDIX P.

Expenditure, Surveys, Year ended 30th June, 1954.

Particulars of Survey—	£	s.	d.
Harvesting and Marketing Project—			
Aerial Photography	79	12	10
Survey Prints, Maps, &c.	758	13	3
Forest Inventory Survey, Reserve 120, Brisbane Valley	46	3	10
Forest Inventory Survey, Reserve 149, Brisbane Valley	7	3	5
Forest Inventory Survey, Reserve 151, Brisbane Valley	20	4	5
Forest Inventory Survey, Reserve 257, Brisbane Valley	29	17	11
Forest Inventory Survey, Reserve 289, Brisbane Balley	354	10	2
Forest Inventory Survey, Reserve 299, Brisbane Valley	144	11	3
Class 1 Survey, Springsure–Clermont	406	16	1
Class 1 Survey, Luxor, Cherwell, and Dunsmure Holdings	301	4	9
Class 2 Survey, Springsure	1,038	9	11
Class 2 Survey, Cotherstone	1,992	15	11
Forest Inventory Survey, Reserve 4, Dalby	1,253	7	5
Forest Inventory Survey, Reserve 78, Dalby	1,862	3	5
Forest Inventory Survey, Reserve 150, Dalby	2	3	7
Forest Inventory Survey, Reserve 154, Dalby	110	14	1
Forest Inventory Survey, Reserve 155, Dalby	1,795	16	4
Forest Inventory Survey, Reserve 184, Dalby	3,150	19	10
Forest Inventory Survey, Reserve 124, Gympie	99	12	4
Forest Inventory Survey, Reserve 234, Gympie	1,107	16	4
Forest Inventory Survey, Reserve 393, Gympie	2,005	14	4
Forest Inventory Survey, Reserve 502, Gympie	589	11	4
Forest Inventory Survey, Reserve 627, Gympie	19	11	5
Forest Inventory Survey, Reserve 57, Maryborough	110	12	10
Forest Inventory Survey, Reserve 62, Maryborough	16	0	0
Forest Inventory Survey, Reserve 915, Maryborough	0	12	1
Forest Inventory Survey, Reserve 928, Maryborough	844	1	9
Firebreak Surveys, Reserve 135/274, Mary Valley	43	1	4
Forest Inventory Survey, Reserve 135/274/435, Mary Valley	1,295	12	1
Forest Inventory Survey, Reserve 318, North Coast	243	13	11
Forest Inventory Survey, Reserve 445, North Coast	2,438	1	11
Class 3 Surveys, Reserve 99/194, North Queensland	3,104	11	8
Class 2 Surveys, V.C.L., Palmerston, North Queensland	358	12	3
Forest Inventory Survey, Reserve 55, North Queensland	11	5	11
Road Surveys, Danbulla	744	9	11
Surveys, Reserve 310, Gadgarra, North Queensland	184	9	6
Road Surveys, Reserve 353, Ongera, North Queensland	22	7	1
Road Surveys, Reserve 756, Palmerston, North Queensland	893	0	5
Road Surveys, Mirriwinni–Russell River, North Queensland	123	5	0
Road Surveys, Malaan–Suttie's Gap	94	11	2
Surveys, Reserve 405, Warwick	3	9	10
	£27,709	12	10
Reforestation Branch Projects—			
As Detailed in Appendix H.	17,929	17	9
Total Expenditure	£45,639	10	7

APPENDIX Q.

Distribution of Personnel, 30th June, 1954.

Salaried Officers	311
Other Employees	1,765
	2,076