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The DPI Forest Service is a business group within the Queensland Department of Primary Industries responsible for the multiple use management of Queensland's State Forests and Timber Reserves on a sustainable basis.

Forest Service expertise in forest management contributes to a Departmental focus on responsible natural resource management and the sustainable development of Queensland's water, vegetation and land-based production systems.

### **Purpose of Yearbook**

This Yearbook provides an account to the people of Queensland of the Department's major forestry activities for the year 1993-94. What the Yearbook offers is a comprehensive summary of the activities undertaken by the Department of Primary Industries' Forest Service, which include commercial activities, world-leading research projects, regulatory activities related to forests and timber and community services.

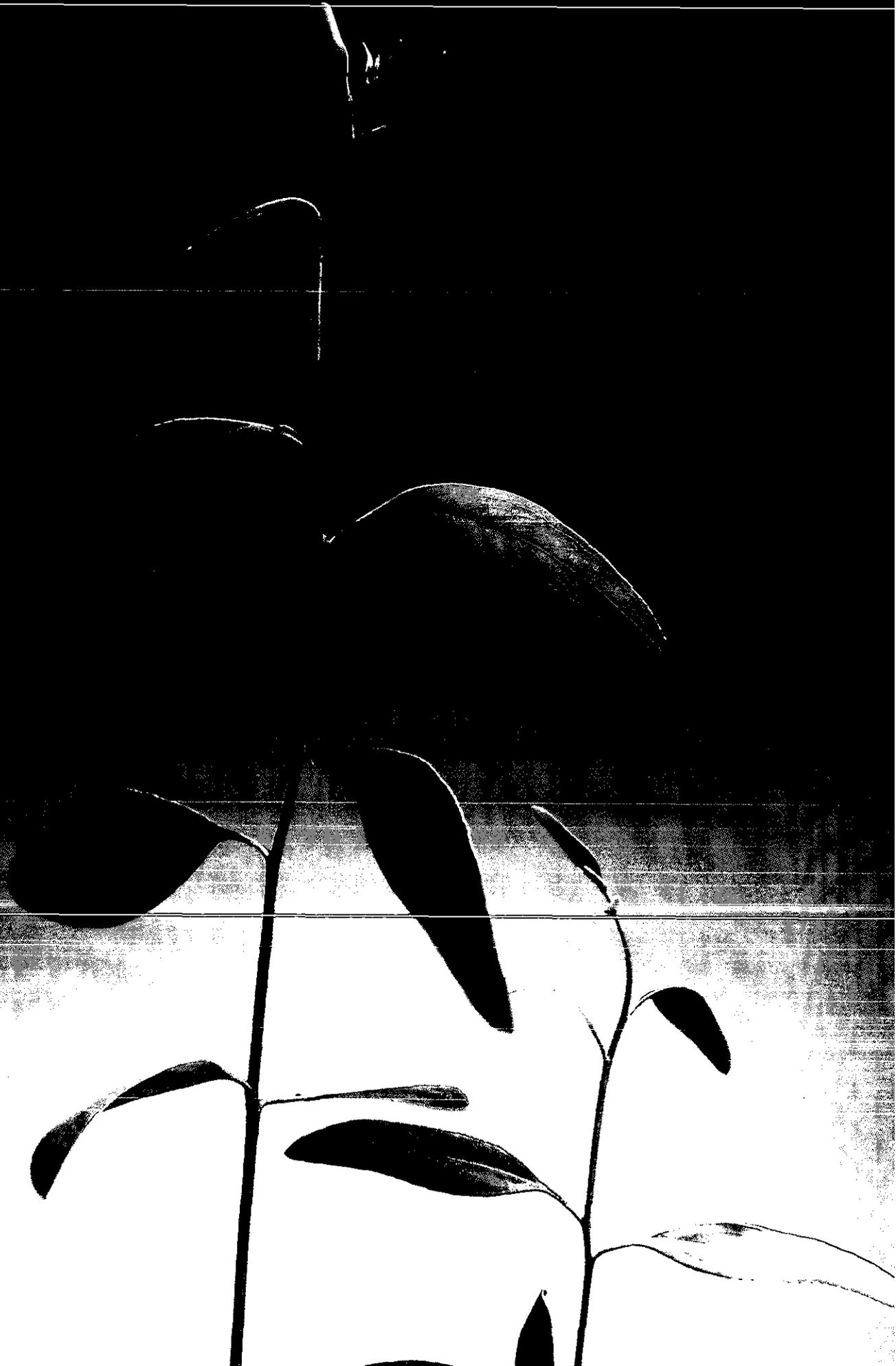


The Department's activities are organised via Programs and Sub-programs and the responsibilities for these are shared across the different business groups within the Department. The following table indicates DPI Forest Service responsibilities across the departmental Program areas:

program	sub-program	forest service responsibility
forest production	plantation prod.	total
	native forest prod.	total
	other resource sales	total
natural resource mgmt.	forest protection & rehab.	total
	integrated catchment mgmt.	shared with other business groups
community services	natural resource recreation	shared with other business groups
	education info & advice	shared with other business groups
product development & marketing	product quality & market assurance	shared with other business groups
industry services	forestry & timber	total

For a full report of all Programs and Sub-programs, consult the Department of Primary Industries Annual Report 1993-94, which provides a complete and audited account of the significant activities and achievements of the Department.

# Executive Director's Message



The DPI Forest Service, the body that has, under different titles, managed Queensland's State Forests for almost a century, is about to change. As a result of these changes, this will be the last year in which we will report on Forest Service management activities on State owned forests in Queensland as a single management body.

During 1994-95 the commercial and non-commercial aspects of forest management will separate. By July 1995 forest management in Queensland will be undertaken by two management bodies - one concerned with policy and regulatory functions and one concerned with commercial production from forests.

Policy and regulatory functions will remain within the Department of Primary Industries in a new Natural Resource Management business group.

Commercial production will become a government owned corporation, run on competitive business principles in line with present government policy. Therefore, this seems an appropriate point in the Forest Service's history to look back and take stock of what has been achieved.

From the time when, in 1918 the then Director of Forests, E.H.F. Swain, devised a system of anatomically classifying wood that was applicable world-wide, Queensland's forest service has been at

the leading edge in forestry and timber research.

The Forest Products Laboratory established by Swain was the first of its kind in Australia, and staffed with an excellent team of scientists. The laboratory continues, in an expanded form, and now works closely with industry on timber quality improvement and value adding.

Today, we build on the legacy provided by some outstanding visionaries. Their foresight and planning is acknowledged in our Yearbook retrospective, *The Century in Review*.

The future from this point is still to be created.

Two bodies, one commercial, one regulatory, will continue the Forest Service's commitment to meeting community needs for timber, conservation, recreation and education, for fresh generations.

We are moving rapidly into a future that demands we develop fresh visions to place the Forest Service as a leader in establishing world best practices. In presenting this report for 1993-94, we pay tribute to the legacy of visionary leadership in the past, and invite you to join us in looking back with pride and forward with anticipation.



**Norm Clough**

**Executive Director**

# The Century In Review



## Early visionaries:

From the first, those charged with responsibility for the state's forests have demonstrated great foresight, as seen in this 1889 Lands Department report: *"It can hardly be questioned that the time is approaching when the wholesale destruction of timber in many parts of the Colony - much of it of a wantonly wasteful nature - will be severely felt. Suddenly, when the depredations of a careless population have produced the inevitable result, the subject of forest conservancy will assume a prominence not yet accorded to it, and it will be a matter of general wonder that our shortsightedness did not allow us to realise that destruction without replenishment must lead to scarcity."* (Surveyor McDowall, 1889).

Queensland's first Director of Forests, Philip MacMahon, was appointed in 1906. Untrained in the science of forestry, he was nonetheless concerned that excessive and unplanned clearing of forests was destroying much of our finest forested land and began widescale surveying of forest resources.



The first professional forester, N. W. Jolly, appointed Director in 1911, quickly took steps towards the sound forest management practices used today. Jolly set an annual cut in relation to the size of the forest, the population of tree species, their size and growth rate. He also recognised the need for regeneration and established nurseries.

Early Directors often drew attention to their concerns in quite startling terms, as expressed in Swain's graph foreshadowing the Araucarian Eclipse from the 1925-26 Yearbook (see p.9). E.H.F. Swain was a true visionary, and though his career had its share of controversy, few can deny his achievements.

Against the background of World War I, Swain established the system of district forestry that continues to provide effective on-site direction and management for Queensland's diversity of forest types.

## Wartime demands for timber

World War I destroyed not only lives and buildings but had a major effect on global forest resources: *"In the process of combat, whole forests were destroyed in Belgium, Northern France, Eastern Prussia, West Russia, Galicia and Roumania. . . .*

*The lumber requirements for the reconstruction of devastated Europe are almost too colossal for imagination.”* (Annual Report 1918).

Post war, timber was needed. The emphasis was on reconstruction and resettlement: *“The shortage of wood for home-building during this first year of reconstruction rendered the delivery of log supplies a matter of extreme urgency, and notwithstanding the disabilities of drought and team shortage, and the totally inadequate permanent staff, the Forest Service has made successful response to the extraordinary calls upon it.”* (Annual Report 1920).

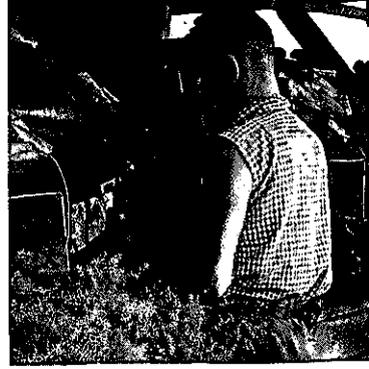
The Minister for Lands instructed that *“a large population . . . should be engaged . . . in sowing, growing, harvesting, and marketing the State’s timber crops”*. Consequently, *“numbers of returned soldiers were enlisted into the Forest Service”* (Annual Report 1920).

### **Looking ahead - experimentation and plantations**

Experimental plantations had been underway for a decade when war broke out, and native hoop pine had proved very successful, but it became clear in

the 1920s that only plantations of fast-growing exotics would be able to meet the demand for pine. At that stage, Swain set an annual target for planting of 2000 ha to expand plantations. Our current planting is not much more, 2856 hectares of softwood in 1993-94, but is now mainly re-planting on areas that have already been harvested. This post-World War I planting meant that during World War II when there was again a heavy demand for timber for defence and essential services, the pine plantations established in south-east Queensland in the 1920s were able to furnish 1 900 000 super feet of thinnings for the war effort.





## Forestry and unemployment

Forestry has provided employment opportunities on many occasions - post-war, during the depression of the 1930s, and again in the present period of high unemployment. In 1931 they had *"the largest annual programme yet undertaken by the Service"* . . . *"This considerable extension of programme has been made possible by the application of the Unemployment Relief Scheme to forestry work. . . . Forestry is definitely of great value as a productive avenue of relief for rural unemployed."*

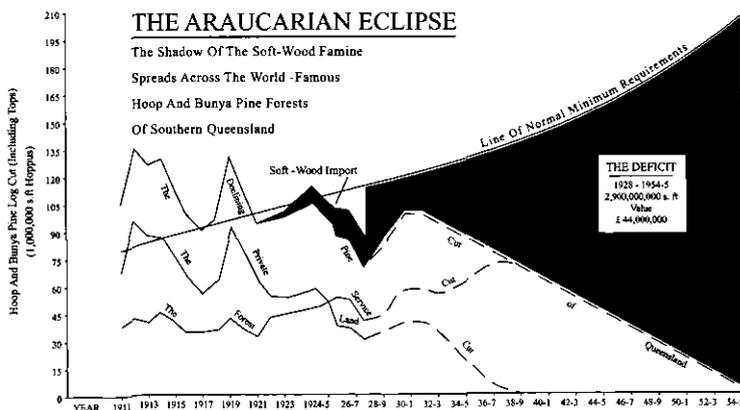
Today, a similar strategy is operating through programs which provide long-term unemployed workers for replanting projects including north Queensland's Community Rainforest Reforestation Program.

## Forest protest and protection

In the 1980s, protests about forestry came full cycle. Early Forestry Directors had protested against clearing of forests. By the 1980s, community groups protested about logging rainforest areas. As a result, three areas were excised from State Forests and placed under World Heritage protection and the last area of rainforest timber production in Queensland, near Eungella, is scheduled to cease in September 1994.

In an era of global concern about forests, the closing of any resource begs questions about where replacement timbers will be obtained, and under what standards of forest management those timbers are felled. The Forest Service continues to contribute to the sustainability of tropical forests through training of forest managers around the globe.

Today, we are moving beyond the conflict generated by past land use decisions into an era of greater consultation in decision-making, and with access to more detailed and scientific data.





## The task

When the first Forest Service was established in the Queensland Lands Department in 1900, its first task was to assess how much timber was available from the 657 026 hectares of timber reserves - with a staff of three.

Today, the DPI Forest Service manages 4.3 million hectares of State Forests and Timber Reserves in Queensland, with a staff of around 1000.

Sustainable wood production is carried out on 1.8 million hectares or 42% of the total 4.3 million hectares, and this includes wood production from plantations, which are grown on 4% of the total area. Another 12% of State Forests and Timber Reserves produces minor forest products. Of the remaining 2 million hectares, 1.4 million (or 32% of the total area) are World Heritage reservations, Special Management Areas, or left as untouched native forest to act as protection for sensitive catchments.



## The achievements

- A total of 1 271 680 cubic metres of sawlogs were removed from Crown lands in 1993-94.

Timber removals from native forests are reducing and the volume of timber harvested from Crown plantations is increasing.

- In 1993-94 consultation with the timber industry, environment groups and relevant government agencies was undertaken to develop a

Greater Planning Certainty Policy for the sustainable management of Crown native forests.

This important policy will provide the basis for effective land use planning, ecologically sustainable forest practices and secure agreements for the supply of wood to industry.

- Comprehensive regional assessments of forest resources are being undertaken as part of the Greater Planning Certainty Policy. An important milestone was reached this year with the setting of priorities for these assessments. The first round of comprehensive regional assessments, in south-east Queensland, is scheduled for completion by the end of 1995.

- Development of a wood chipping joint venture project in the Gympie/Maryborough region, based



on plantation thinnings, is proceeding on target for a start up in late 1994. The \$8m operation will clear a backlog of surplus plantation thinnings, the poor-growing trees that are removed to allow space and light for the best trees to grow. These will be converted to woodchips in Queensland, creating direct employment for 65 people.

- Almost 4000 schoolchildren took part in four days of experiential forest education activities at Mt Mee during the week of World Forestry Day, March 21, the largest forest-based education event ever held in Australia.

- New interpretive facilities established at three state forest sites are designed to increase community awareness and understanding of the role of forest management in south-east Queensland.

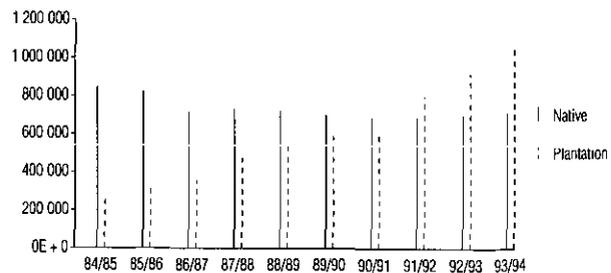
- Joint DPI Forest Service and Geography Teachers Association of Queensland workshops allowed high school teachers to participate in the development and refinement of forest education materials for use in schools.

- A report outlining the state-of-the art methodology for mapping old growth forests was produced in collaboration with a national panel of experts. The methodology report was based on a pilot project in the d'Aguilar Range in south-east Queensland, and will be used to direct an old growth forest mapping project across the State.

- Approximately 900 000 hectares of south-east Queensland has been mapped for forest cover and structure. This is a continuing project.

- More than 450 hectares of land on close to 170 private properties in north Queensland were planted as part of the Community Rainforest Reforestation Program (CRRP). Field days have been held across the area to promote the program

Sawlog Removals





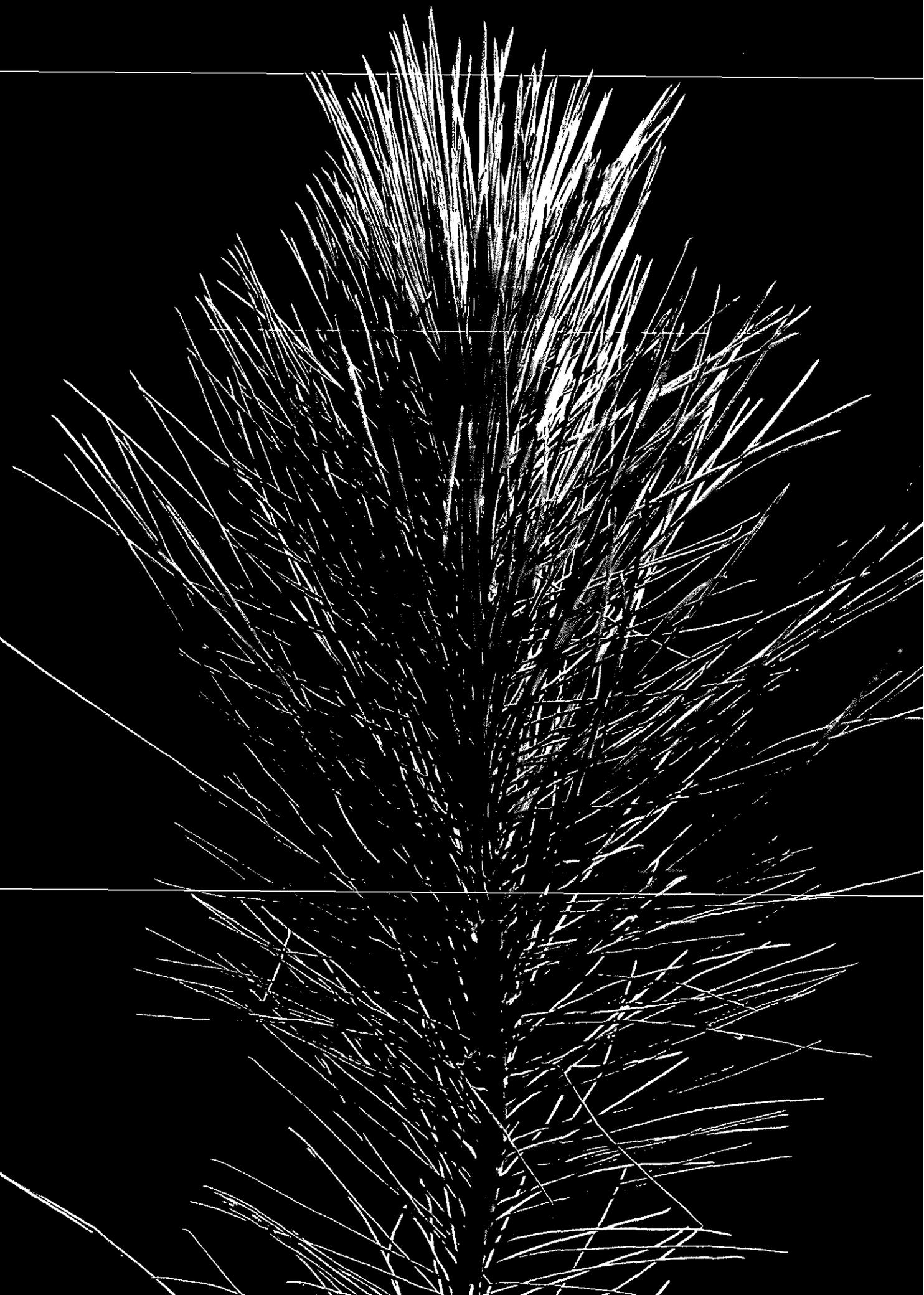
and to provide information on tree planting, establishment and management techniques. One hundred and fifty people have been trained through the Landcare and Environment Action Program (LEAP) which is being used for much of the labour of the program.

- An extensive evaluation of the Natural Resource Recreation Sub-program was completed in November 1993 and concluded that this program remains appropriate, should be retained and expanded. Detailed comment from respondents consulted on the appropriateness of goals, strategies and performance indicators, will be incorporated in the Program's strategic plans in 1995.

- The Forest Service supervised the fumigation of five major city buildings and 10 houses to eliminate West Indian drywood termites (*Cryptotermes brevis*) between September and November 1993. City buildings included the Lands Administration and Treasury Buildings, the Queensland Club, the Backpackers Hostel in Brunswick Street and the old Department of Primary Industries Building. Outer city buildings included the Windsor State School.

- Pilot trials demonstrated that the heartwood of slash and Caribbea pine has a natural resistance to termite attack. The chemical extractives providing this resistance have been identified and further experimentation is being conducted to characterise the different pine species according to their extractive content. The research has the potential to provide timber with protection from termites using these natural chemical extractives.





The Queensland Forest Research Institute has its headquarters at Gympie with branches at Indooroopilly and Atherton. The Institute undertakes both externally funded research and research within DPI Programs and Sub-programs.

### **Clonal forestry**

- The second generation of clonal tests were established during 1993-4, testing 500 clones. The best of these will be selected and then selectively multiplied. By the year 2000 researchers expect to be able to meet the entire plantation planting program from the best of these clones.

### **Hardwood plantation studies**

- Writing began on a comprehensive research and development strategy to support hardwood plantations in Queensland.
- Good progress was made on the development of vegetative propagation techniques for cabinetwoods in North Queensland and tree improvement strategies were developed for rainforest hardwoods .

### **Ecological sustainability studies**

- A Coastal Lowlands Sustainability Study was installed in exotic pine plantations near Gympie, to provide information on plantation management impacts. The study will monitor the sustainability of plantation wood production practices.

- A study of the ecological impacts of native forest management has been initiated. Objectives include an information base for the development of Codes of Practice and models to predict the impact of management on ecological processes. The project focuses on the tall, closed eucalypt forests and the tall, open eucalypt forests of central and southern Queensland which comprise a major part of the State's native forest resource.

- A Departmental research program has been established to enhance knowledge of sandalwood ecology, growth and yield as a basis for sustainable sandalwood management and harvesting in western and north-western Queensland.

### **Fauna research**

- Numerous research reports have been published on Queensland fauna in State Forests, including reports on: the Marbled Frogmouth, Yellow Bellied Glider, Black Breasted Button Quail and the fauna of Kroombit Tops; the effects of fire on ground fauna at Beerwah; and a preliminary investigation of fauna in watercourse protection zones within pine plantations in Beerburum State Forest.



# The DPI Forest Service - A Profile



**executive director**  
Norm Clough  
*BSc (For) Dip. For.*



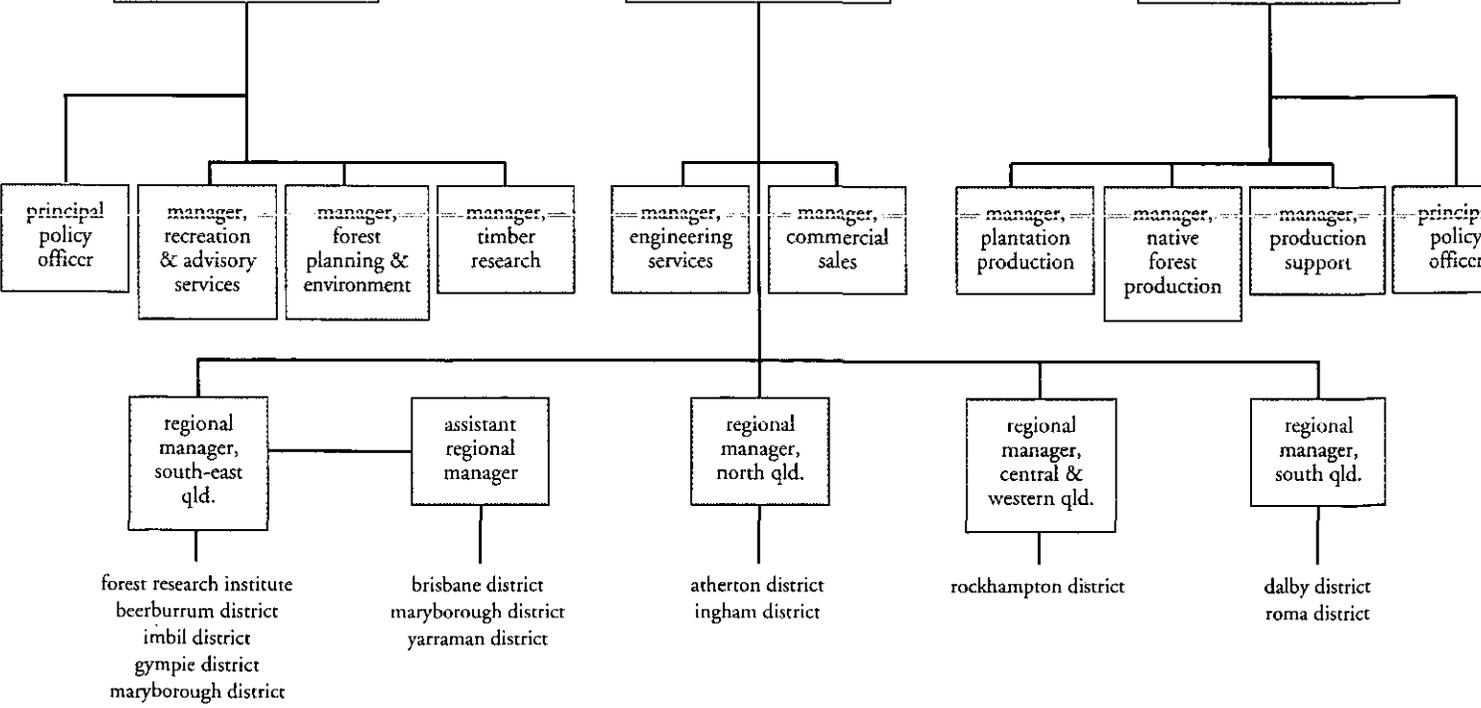
**general manager, forest services**  
Geoff Johnson  
*BSc (For) Dip. For.*



**general manager, operations**  
John Duus  
*BSc (For) Dip. For.*



**general manager, com. production**  
Tom Just  
*BSc (For) Dip. For.*



## Where We Have Come From

Within 50 years of Queensland's settlement people became concerned that there wouldn't be enough forests left to provide timber and other forest values for future generations. Extensive lobbying, both by concerned individuals and by the early forest managers working within the Lands Department led to the appointment of a Director of Forests in 1906.

Under a variety of names, the forest service took from the best of both British and American practices of the time and began the delicate balancing act between the conservation and the commercial aspects of forestry.

A succession of Forest Service Directors lodged bitter protests with state governments and lands departments over the clearing of forests for settlement and farming without regard to the value of the timbers on them or the importance of conserving species.

These early battles for sound forest management won for us a legacy of both native forests and plantation resources, a highly trained professional forest service staff, a world renowned research program and internationally respected forest management techniques.

## What We Do

The role of the Forest Service includes both commercial and community service obligations.

- We manage reserved native forests to ensure their long-term sustainability, for the ongoing availability of a range of forest products and for the protection of natural values.
- We grow and market forest products from plantations.
- We market forest products and quarry materials from a variety of Crown lands throughout the State.
- We ensure consumer protection by monitoring the quality of treated timber products sold in Queensland.
- We protect and rehabilitate forests.
- We assist in integrated catchment management.
- We undertake forest and timber research and provide extension services.
- We also provide a range of forest related services, including recreation opportunities, to the people of Queensland.





## **Acts Administered by DPI Forest Service**

**Forestry Act (1959)** - An Act to provide for forest reservations, the management, silvicultural treatment and protection of State Forests and the sale and disposal of forest products and quarry material, the property of the Crown on State Forest, Timber Reserves and on other lands.

**Forestry Regulation (1987).**

**Sawmills Licensing Act (1936)** - An Act to make provision for the stabilisation of the timber industry by the licensing of sawmills and veneer and plywood mills.

**The Sawmills Licensing Regulation (1965).**

**Timber Utilisation and Marketing Act (1987)** - An Act to regulate: the sale and use of timber susceptible to lyctid borers; standards of seasoning for the sale and use of timber; standards of preservation and branding for preservative treated timber.

**Timber Utilisation and Marketing Regulation (1987).**

**Diseases in Timber Act (1975)** - An Act to provide for the taking of measures for the extermination or the prevention or control of the dissemination of any disease in timber.

**Diseases in Timber Regulation (1979).**

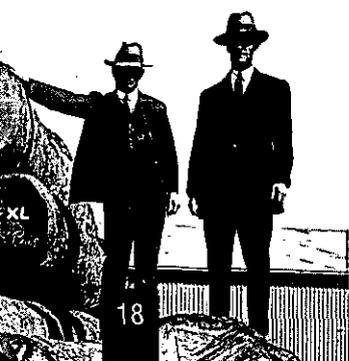
## **Who We Do It For**

The Forest Service provides products and services to a wide range of clients in government, industry and community including : the wood processing industry; apiarists; graziers and pastoralists; the tourist industry; the general public; the quarrying industry; other research organisations; afforestation companies; and community interest groups.

## **How We Do It**

### **Accountability**

The Executive Director (Forest Service) is accountable to the Director-General of the Department of Primary Industries. The Forest Service is one of six business groups within the Department of Primary Industries.





## Regionalisation

Services to our clients are provided at a local level through a network of offices across the State and from our central offices in Brisbane. Regional Managers are based at Nambour, Toowoomba, Rockhampton and Townsville and report directly to the Department's Regional Directors. Regional managers oversee effective operations at a district level through District Foresters. More than 70 percent of staff are based in regional areas. Forest Rangers-in-Charge are based in many regional cities, towns and localities in each of the 12 Forest Service Districts throughout the State. They supervise operations and service delivery to clients at a local level and report to their respective District Foresters.

## Organisation

Three Brisbane based divisions have Statewide planning and policy responsibilities:

### Division of Commercial Production

- responsible for planning and performance in commercial programs

### Division of Forest Services

- responsible for planning and performance in non-commercial programs

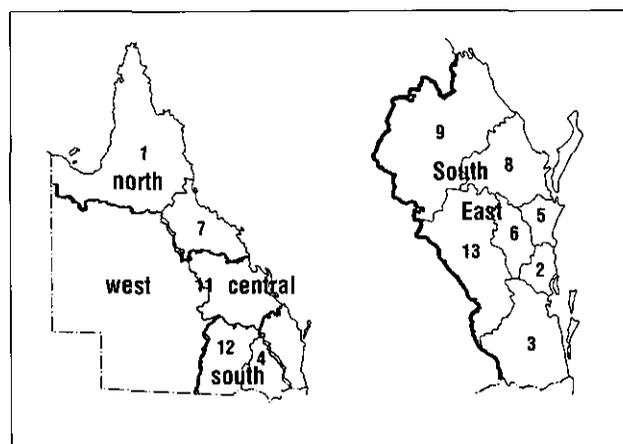
## Division of Operations

- responsible for commercial sales and operational activities requiring coordination at a central level

The Department's Corporate Services business group provides us with financial, human resource management, information management and other support services.

## Where We Do It

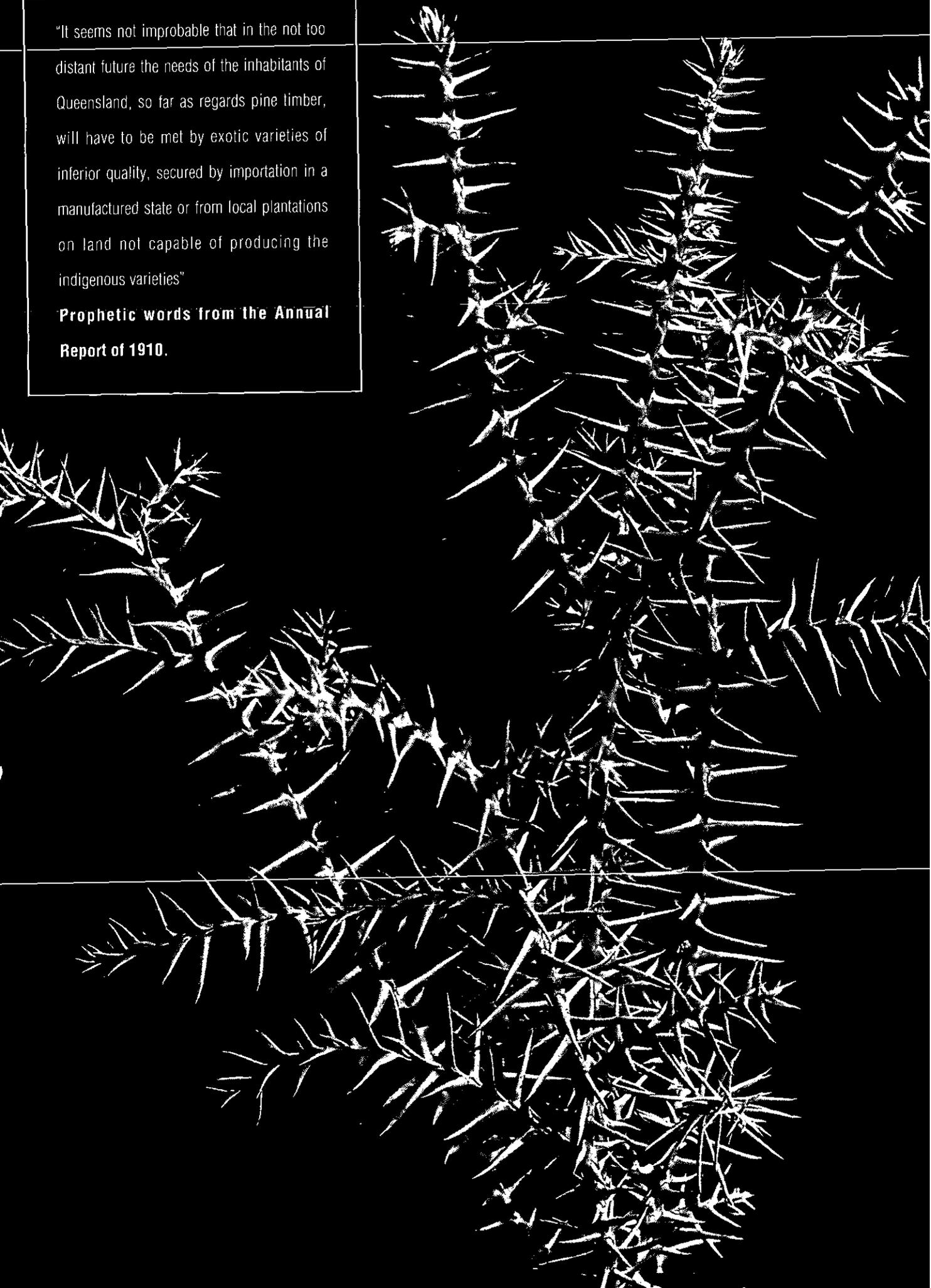
<b>North Region Districts -</b>	<b>South-East</b>
Atherton (1) and Ingham (7).	<b>Region Districts -</b>
<b>Central &amp; West</b>	Beerburrum (2),
<b>Region Districts -</b>	Brisbane (3), Gympie(5),
Rockhampton (11).	Imbil (6), Maryborough (8),
<b>South Region Districts -</b>	Monto (9) and Yarraman (13).
Dalby (4) and Roma (12).	



# Forest Production Program

"It seems not improbable that in the not too distant future the needs of the inhabitants of Queensland, so far as regards pine timber, will have to be met by exotic varieties of inferior quality, secured by importation in a manufactured state or from local plantations on land not capable of producing the indigenous varieties"

**Prophetic words from the Annual Report of 1910.**



The Program manages timber and quarry materials removed from Crown lands as well as about 4 million hectares of reserved native forest and 178 000 hectares of plantation forest on a multiple-use basis. These resources contribute to the State's wood consumption requirements.

program	sub-program	forest service responsibility
forest production	plantation production	total
	native forest production	total
	other resource sales	total

## plantation production sub-program

### Description

The management of State Forest plantations for commercial timber production is conducted through the Plantation Production Sub-program. The forest plantation estate now covers 178 000 hectares, mostly in south-east Queensland. Of this, 45 000 hectares are native hoop pine, about 2 000 hectares are hardwoods while the remaining 131 000 hectares are exotic pine.

### Goals

To contribute to the development and long-term viability of efficient wood-based industries in Queensland by establishing and managing forest plantations, and adopting appropriate sales, pricing and long-term supply policies.

To ensure that plantations on State Forests are established and managed in an environmentally responsible manner.

To optimise the return to the State from funds invested in plantations while ensuring a minimum return on investment of 3% real.

### Achievements

#### Financial performance

- Plantation Production revenue was \$59 733 000. As a result of a surplus generated from plantation sales, an \$8m dividend was paid to Treasury in 1993-94.

#### Production targets

- A total of 1 170 270 cubic metres of timber was removed from Crown plantations in 1993-94; of this, 975 255 cubic metres were sawlogs. The volume of timber harvested from Crown plantations is increasing.

- To help ensure the future supply of forest products a total of 2 856 hectares of Crown softwood plantation was planted or replanted in 1993-94.



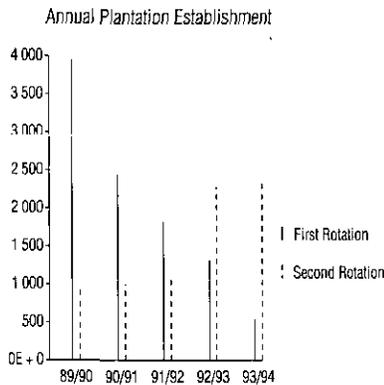


### Hardwood plantations

- Planning for a small scale hardwood plantation program, based on best practice techniques, has commenced in the Pomona area. The management intent is for the production of high quality products suitable for high value processing opportunities such as poles, sawlogs and veneers. Initially, the project will focus on the replanting of poor quality experimental hardwood plantations planted in the 1950s and 1960s which are currently being clearfelled for a range of log products.

### Industry Development

- Development of a wood chipping joint venture project in the Gympie/Maryborough region, based on plantation thinnings, is proceeding on target for a start up in late 1994.

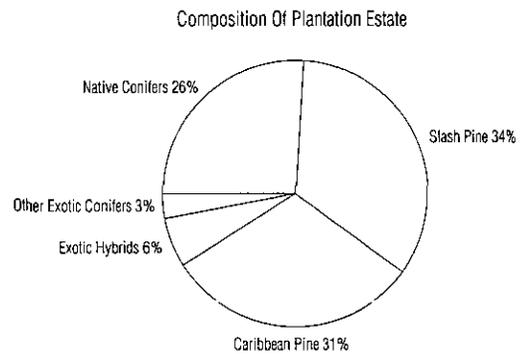


### Ecologically sustainable management

- In keeping with commitments under the National Forest Policy Statement, Codes of Forest Practice are being drafted to enhance the management and monitoring of Forest Service operations in all areas.

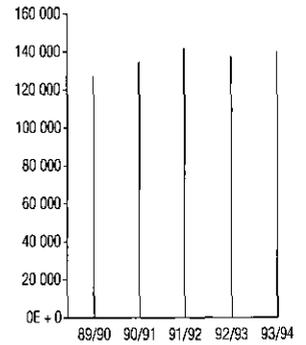
### Clonal forestry

- Wood properties testing of cloned pine trees was undertaken, showing significantly reduced variation between individual trees. Reducing variation in wood properties will allow for more efficient processing of plantation grown softwood and will ensure higher quality wood is produced.





Crown Pulpwood Removals



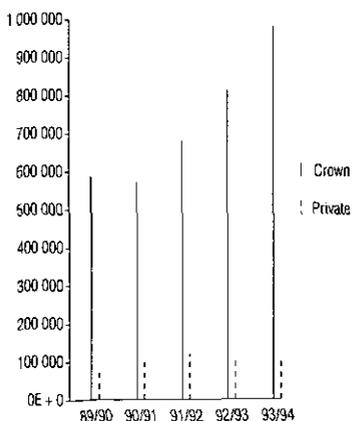
## Implementation of Softwood Marketing Strategy

- Implementation of the Softwood Marketing Strategy resulted in additional sales of plantation pine including: 155 000 m<sup>3</sup> per annum of final crop exotic pine from Beerburrum (nine year sale); 20 000 m<sup>3</sup> per annum of hoop pine final crop from Yarraman (five year sale); 170 000 m<sup>3</sup> per annum of exotic pine pulpwood thinnings from Tuan/Toolara (10 year sale); spot sale of 37 000 m<sup>3</sup> of hoop pine final crop from Imbil.

### Pricing strategies and reviews

- Price reviews have been negotiated on a number of existing sales at Tuan, Toolara, Yarraman, Imbil and Murgon.
- A discussion paper was prepared and circulated to industry on pricing strategies for plantation softwood sold under long-term agreement.

Plantation Mill Timber Removals



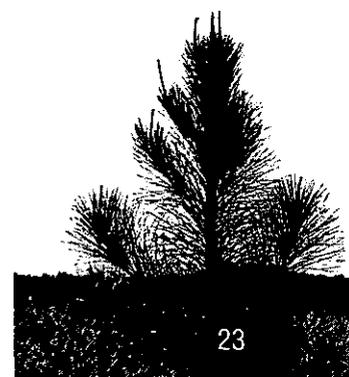
## Future Directions

Initiatives currently being pursued in the context of the Plantation Production Sub-program activity include:

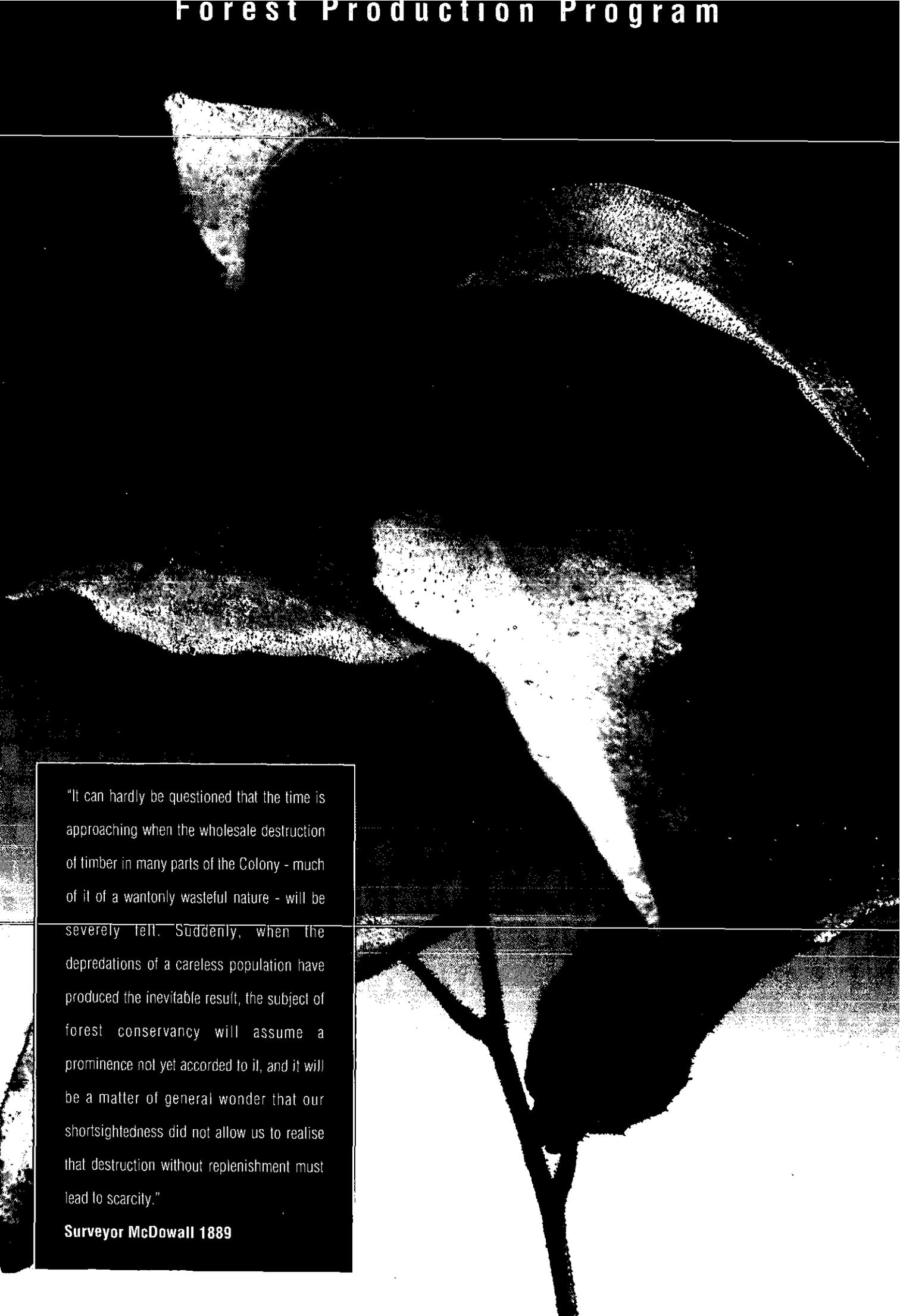
- implementation of National Forest Policy Statement key initiatives.
- the development of a more market orientated vision and culture.
- the quarantining within other program areas of non commercial costs.
- the examination of alternative selling systems for wood.
- the exploration of commercial opportunities associated with plantation genetics.

Changes to Sub-program goals are anticipated in 1994-95 as a result of corporatisation:

- Plantation Sub-program financial goal to be more clearly stated.
- Industry development goals to be dropped from both Plantations and Native Forests Sub-programs (and placed more appropriately in other DPI program areas).
- Environmental goals to be reworded in keeping with ecological sustainability imperatives.



# Forest Production Program



"It can hardly be questioned that the time is approaching when the wholesale destruction of timber in many parts of the Colony - much of it of a wantonly wasteful nature - will be severely felt. Suddenly, when the depredations of a careless population have produced the inevitable result, the subject of forest conservancy will assume a prominence not yet accorded to it, and it will be a matter of general wonder that our shortsightedness did not allow us to realise that destruction without replenishment must lead to scarcity."

**Surveyor McDowall 1889**

# native forest production sub-program

## Description

Productive areas of native forest located on State Forest and Timber Reserves are managed under the Native Forest Production Sub-program primarily for commercial timber within the principles of ecologically sustainable development.

Native forests yield a wide variety of commercial timber products including sawlogs, power poles, girders, sleepers, landscaping and fencing materials.

While timber production is the primary aim, the forest is managed for multiple uses including provision of clean water, honey-bee sites, grazing, fauna habitat maintenance and conservation and protection of special features of historical, cultural, scientific and aesthetic and landscape importance.

## Goals

To efficiently and effectively manage reserved native forest for sustainable timber production, while ensuring that the broader State requirements for protection of water catchments and maintenance of other forest values and benefits are met.

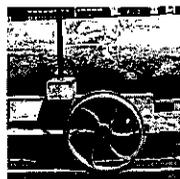
To ensure that annual net revenues are maximised and that revenue is at least equivalent to costs.

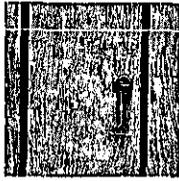
To contribute to the development and long-term viability of efficient native forest-based processing industries in Queensland.

## Achievements

### Financial performance

Revenue and expenditure for native forest production was approximately \$8.2m and \$10.4m respectively. The resulting revenue/expenditure ratio of .78 reflects a minor downturn in native timber revenues from 1992-93 and a withdrawal of \$1.7m consolidated funding previously directed to non-commercial activities within the Sub-program.





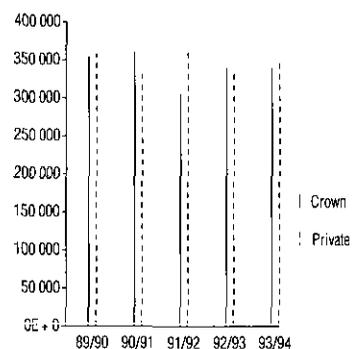
### Development of Native Forest Codes of Practice

• In keeping with commitments under the National Forest Policy Statement, Codes of Forest Practice are being drafted to enhance the management and monitoring of Forest Service operations in all areas. When developed, these codes will provide clearly documented policies, standards and performance indicators for forest management activities including timber harvesting and the use and control of fire in forest ecosystems. They will complement the extensive management prescriptions already applied in the Forest Service and will enhance public accountability. It is anticipated the interim Codes will be released for public comment by December 1994.

### Upgrade of Native Forest Resources Information System

- An allocation of \$500 000 has been made to address the recommendations of a recently completed consultants' review of the Forest Service's native forest resource information system. Priority actions include the conversion of existing mapped information into electronic form, plus the acquisition of additional field inventory information.
- A total of 45 permanent inventory plots of native forest were added in 1993-94 at a total cost

Native Forest Mill Timber Removals





of \$134 000. The additional inventory plots will contribute additional data for the Forest Service's native forest inventory database, a database for predictive modelling used in scheduling the future yield production from native forests on Crown lands.

#### **Reduction of native forest allocations**

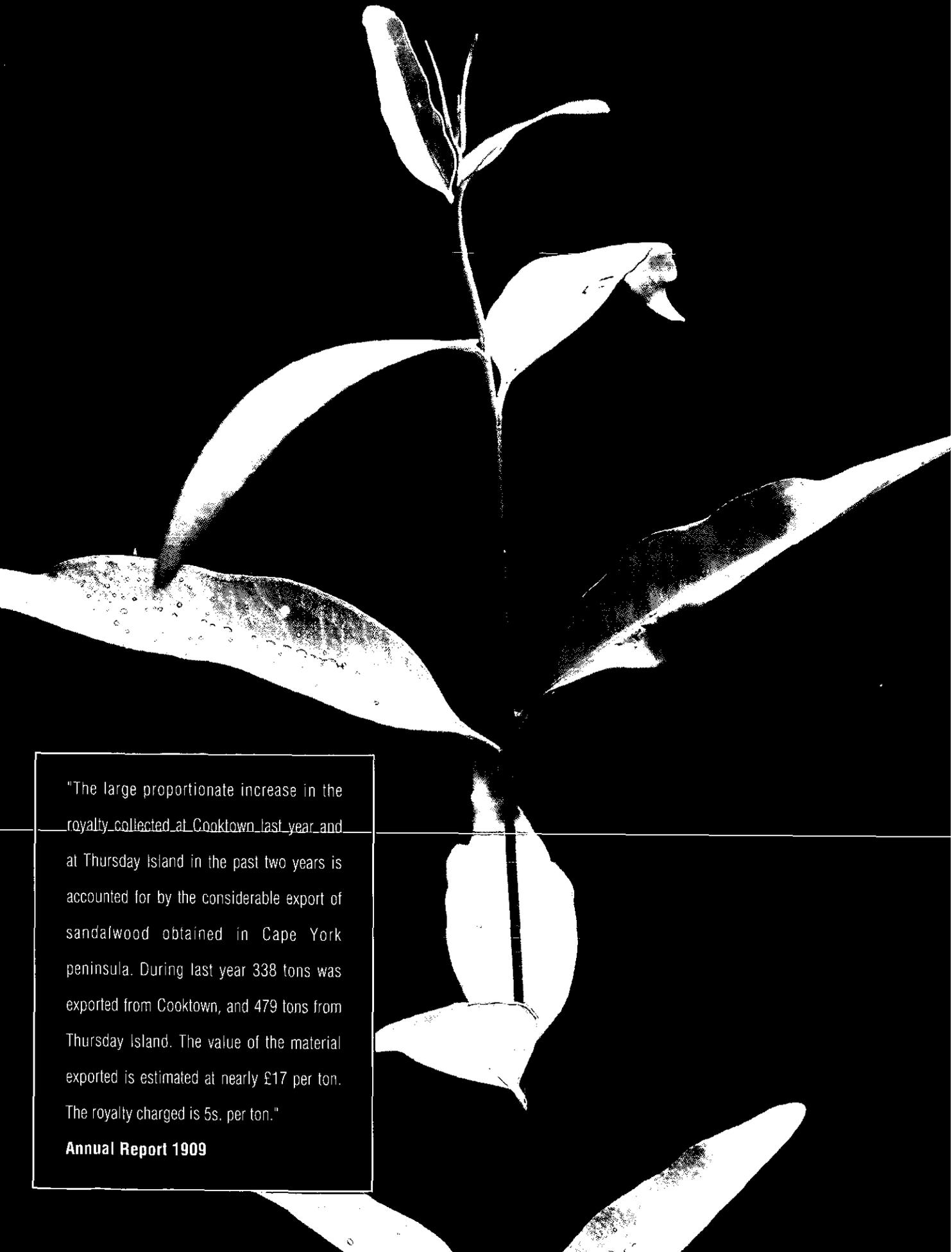
- Negotiations have been undertaken with industry on the phase-in of allocation reductions in the annual sawlog cut from 320 000 cubic metres a year in 1993 to 308 000 cubic metres by 1996.

#### **Crown Native Forest Timber Allocation and Pricing Policy**

- A discussion paper on native forest sawlog pricing and allocation policies in Queensland was released in June 1993 and a series of regional meetings were held with industry in July-August 1993. Allocation and pricing principles have subsequently been considered for inclusion in the Charter of the new Corporation.



# Forest Production Program



"The large proportionate increase in the royalty collected at Cooktown last year and at Thursday Island in the past two years is accounted for by the considerable export of sandalwood obtained in Cape York peninsula. During last year 338 tons was exported from Cooktown, and 479 tons from Thursday Island. The value of the material exported is estimated at nearly £17 per ton. The royalty charged is 5s. per ton."

**Annual Report 1909**

# other resource sales sub-program

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## Description

The Other Resource Sales Sub-program covers the supervision and sale of forest products harvested on Crown lands other than State Forests and the management of gravel and quarry material extraction from other Crown lands.

Under this Sub-program forest products are harvested mainly from Crown land held under private leases for pastoral production. This contributes considerably to the availability of native forest resources in Queensland. The DPI Forest Service also supplies a significant quantity of quarry material and gravel to industry and other Government agencies. All extraction operations take place under approved environmental standards.

## Goals

To harvest products from specified Crown lands in accordance with the long-term needs of the community, while taking into consideration the requirements of the agencies in which the land is vested.

To ensure forest harvesting operations are efficient, effective and environmentally responsible.

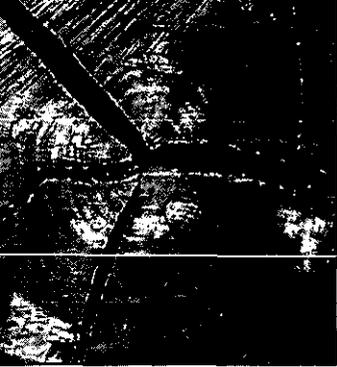
To supplement the resource needs of Queensland-based forest product processing industries by promoting the retention of forest areas and the maintenance of forest productivity.

To ensure that all quarrying operations controlled by the DPI Forest Service are conducted in accordance with approved environmental standards.

To ensure that, as far as possible, adequate supplies of suitable quarry material are available from Crown land to assist in the long-term regional development of the State.

To ensure that annual net revenues are optimised and that revenues are at least equal to costs.





## Achievements

### Financial performance

Net revenue of around \$2m was recorded for the Other Resource Sales Sub-program in 1993-94, maintaining the improvement seen in the 1992-93 results.

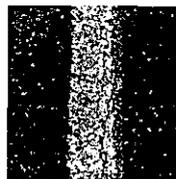
- Removals from quarries for the year amounted to 1 593 641 cubic metres and generated revenue of \$1 922 901.

### Quarry Material Resources

- Quarrying operations provide around eight percent of the State's total quarry materials.
- The Forest Service seeks to minimise the adverse effects of quarry operations under its control, by ensuring, among other things, that all quarries are operating in accordance with approved working plans which specify operating and rehabilitation processes. Of the 160 operating quarry sites a little more than 50 percent currently have approved *working plans*.
- The Forest Service negotiated a 10 year sale of quarry materials to the Department of Defence for a new RAAF base being built at Weipa. The Department will issue a contract for the operation of the quarry, which will assist the development of this key defence base.

## Future extraction

- The future management of extractive resources in Queensland has been reviewed as part of the SEQ2001 planning project in South East Queensland and a statewide study by the Office of the Co-ordinator General of the administration of extractive industries. A range of issues is being addressed including strategic planning needs, approval processes and the ongoing monitoring of operations and enforcement of regulations.





### **Cypress resources and allocation**

- A review of the management arrangements applying to cypress pine resources held under grazing leases was approved by the Minister for Primary Industries in September 1993.
- Three public meetings were held in Injune, Augathella and Mitchell in February and March, to seek the views of leaseholders, sawmillers and other members of the community. As a result a Policy Options Paper is being prepared on cypress pine holdings for wider community consultation.
- There has been an increase of 10 000 m<sup>3</sup> a year for 10 years only in cypress pine entitlements in the Roma-Injune allocation zone.

### **Sandalwood resources**

- Major policy issues associated with the sustainable management, harvesting and sale of the Crown sandalwood resource from north Queensland have been identified so that options for resource management and sale can be considered by the State Government.
- A significant and extensive consultation was undertaken with representatives of all major industry groups related to the sandalwood industry to discuss the future of the sandalwood industry. The meeting was the first to gather together all the then principal sandalwood firms in Queensland.
- The price of sandalwood steadily increased during the year, continuing a trend of recent years and reflecting the quality and reliability of wood from the Richmond-Hughenden area.



"The Swedish Forest Department is buying up as rapidly as possible the areas which the Swedish Government allowed to become denuded, and by closing these areas to exploitation for some years and then cautiously working them under skilled supervision, is gradually getting the forests back to condition, and this must be the policy in Queensland if we are to be successful.

**From the Annual Report of the Director for the Year 1908, urging reforestation and better assessment of resources.**

This Program is about the management and promotion of the long-term viability of the State's land, vegetation, water, forest, fisheries and fisheries habitat resources. Key issues addressed are the impact of land and water use on coastal and marine environments, productivity declines from degradation of land and water resources and competition for natural resources.

program	sub-program	forest service responsibility
natural resource mgmt.	forest assem. & protection	total
	integrated catchment mgmt..	shared with other business groups

## forest assessment & protection sub-program

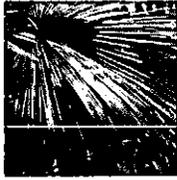
### Description

Under the Forest Assessment and Protection Sub-program, the DPI Forest Service aims to achieve the protection and ecologically sustainable use of Queensland's public forest resources as well as the rehabilitation of degraded rural lands by appropriate tree plantings. It also aims to assess the forests of Queensland and allocate public land to its best use. In doing this, a high level of community involvement is encouraged both in the resolution of land use management issues and in 'grass roots' tree planting and maintenance activities. To provide a sound base for these initiatives, the DPI Forest Service places a heavy emphasis on the development and provision of high quality scientific and geographic information concerning the State's forest resources.

### Goals

- To improve the quality and availability of information on the State's forest resources.
- To increase understanding of forest ecosystem processes and management systems for ecologically sustainable use.
- To increase community and resource user responsibility for sustainably managing forest resources.
- To improve planning and decision-making on the allocation and management of the State's forest resource.





### **Achievements**

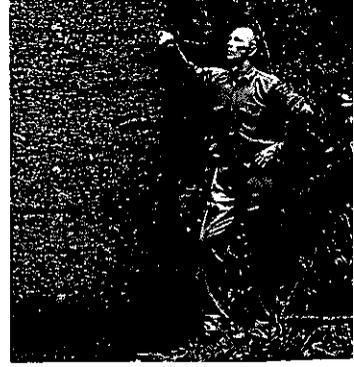
- A report outlining state-of-the art methodology for mapping old growth forests was produced in collaboration with a national panel of experts. The methodology report was based on a pilot project in the d'Aguilar Range in south-east Queensland, and will be used to direct old growth forest mapping project across the State.
- Approximately 900 000 hectares of south-east Queensland has been mapped for forest cover and structure. This is a continuing project.
- A number of visits by distinguished international guests indicated the high level of interest in Queensland's forest management

practices. A representative of the World Bank, Washington DC, visited to discuss land use planning and forest research; the High Commissioner for Malaysia looked at methods of ensuring sustainable logging of tropical rainforest and the Director, Afforestation Division, Ministry of Forestry, Peoples Republic of China discussed environmental management implications.

### **Comprehensive Regional Assessment**

- A State-Commonwealth Task Force on Comprehensive Regional Assessment (CRA) was established in response to the Queensland Government's Greater Planning Certainty for Queensland's Wood Products Industry Based on Crown Native Forests, and the National Forest





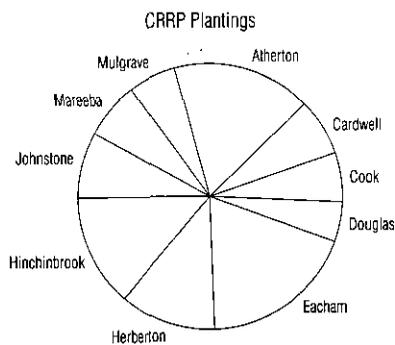
Policy. The first milestone was reached with the publication of a report on Broad-scale Priorities for Comprehensive Regional Assessment of Queensland's Native Forests.

### Community Rainforest Reforestation

- Over 450 hectares of land on around 170 private properties in north Queensland were planted as part of the Community Rainforest Reforestation Program (CRRP). Field days have been held across the area to promote the program and to provide information on tree planting, establishment and management techniques. One

hundred and fifty people have been trained through the Landcare and Environment Action Program (LEAP) which is being used for much of the labour of the program.

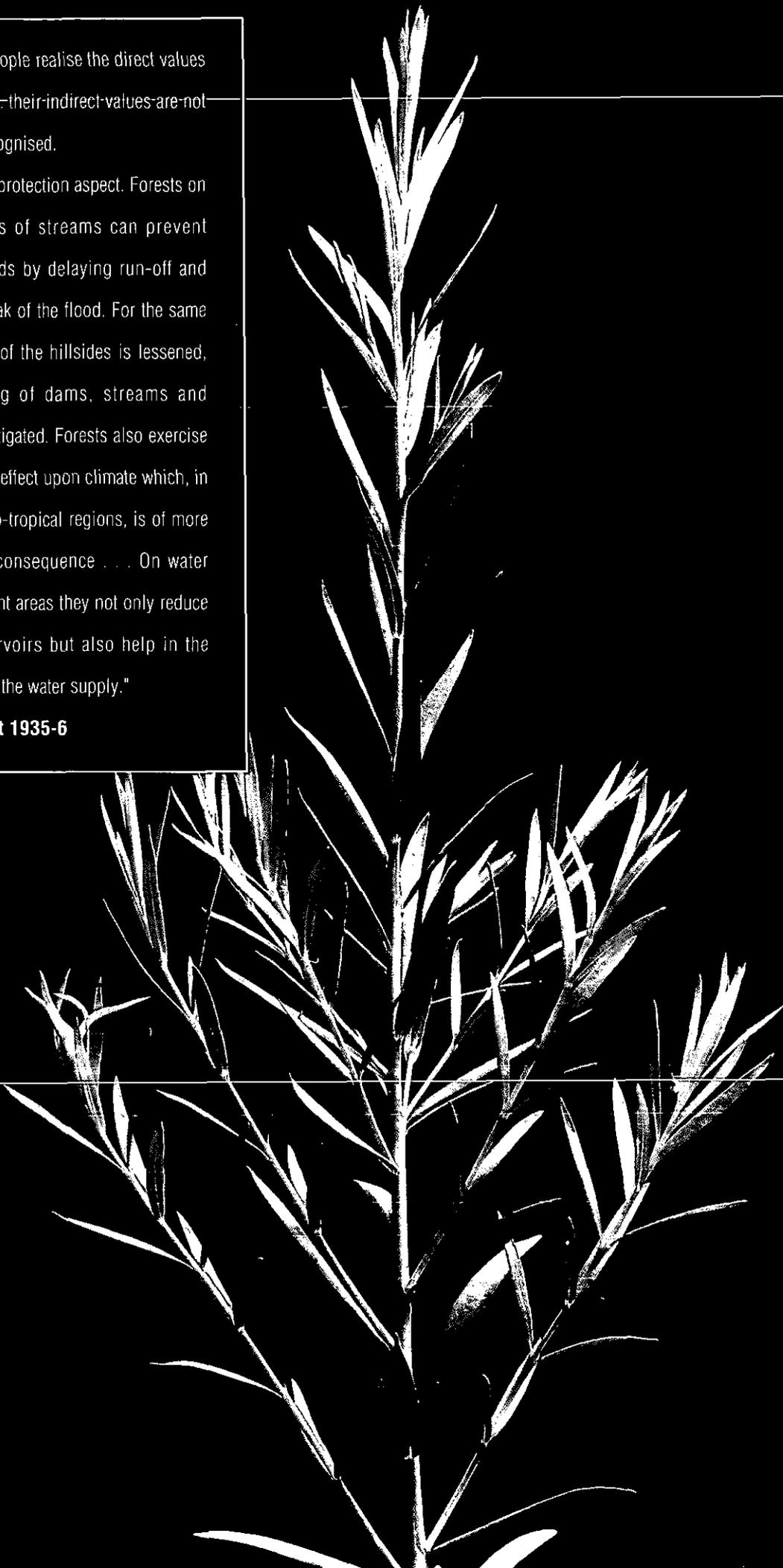
- A community farm forestry program is being developed in the Mackay/Proserpine area based on the North Queensland Community Rainforest Reforestation Program model involving local, state and federal governments. This will be used address a significant predicted shortfall in hardwood. The program envisages planting 5400 hectares and employing around 23 people.



"Whilst many people realise the direct values of the forests . . . their indirect values are not so generally recognised.

"First of all, the protection aspect. Forests on the headwaters of streams can prevent disastrous floods by delaying run-off and reducing the peak of the flood. For the same reason erosion of the hillsides is lessened, and the silting of dams, streams and reservoirs is mitigated. Forests also exercise an ameliorating effect upon climate which, in tropical and sub-tropical regions, is of more than ordinary consequence . . . On water supply catchment areas they not only reduce silting of reservoirs but also help in the improvement of the water supply."

**Annual Report 1935-6**



# integrated catchment management sub-program

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## Description

This Sub-program covers Department-wide activities aimed at achieving the sustainable and balanced use of land, water and related biological resources in Queensland. Activities under the Sub-program are guided by an integrated catchment management strategy which recognises that natural resources are interrelated and that river catchments are natural units for managing them. The DPI Forest Service's Treecare initiative makes a significant contribution to Departmental and community-based efforts under the Sub-program.

## Goals

To improve community understanding of the relationships and interactions between natural resources and the need to manage these resources in an integrated way to achieve their sustainable and balanced use.

To increase co-operation and co-ordination between Government agencies, community groups and individual resource users in the integrated planning and management of natural resources for sustainable use.

To increase community responsibility for planning the integrated management of land, water and related biological resources for their sustainable and balanced use.

To increase community ownership and responsibility for implementing sustainable land and water use and management policies and practices.

## Achievements

### Treecare extension

- Over 20 Treecare field days and workshops were held with Landcare groups and other landholder groups around the State focusing on issues such as riparian vegetation management, native forest retention and management, and growing trees for sustainable agriculture.





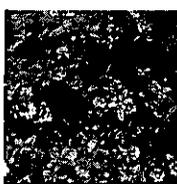
- Decreased emphasis on the free tree program led to a concentration on helping community groups such as Landcare groups working on projects of broad community benefit, in line with ICM priorities.

- The Trees for Landcare Scheme has been initiated and applications for 55 000 free trees for Landcare group projects have been approved.

- Around 22 Tree Advice information sheets were reviewed and rewritten to provide up to date *information more relevant to landholder needs.*

Another 11 sheets have been developed.

- A trial to develop and test two self-help Agrilink information packages on the role of trees has been initiated and initial drafts prepared.

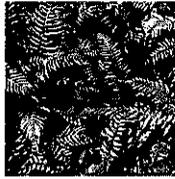


- Data for TREEDAT, a database of tree growing information for Queensland, was collected for 60 sites in south-east Queensland. Work has commenced on preparing species summaries for priority species.

- A school ground environment self help planning kit developed in conjunction with Greening Australia, the Education Department, school ground staff, Parents and Citizen groups and other Departmental staff is ready for release to schools and interested community groups.

- Results of a wide range of Treecare experiments, ranging from three to 15 years duration, established to research important aspects of tree establishment and maintenance, rehabilitation of saline soils, genetic evaluation, management systems and Treecare nurseries have been put into use in the Treecare extension program. Much of this work has been recognised as being a significant contribution to Australian and international understanding in the use of trees in sustainable land management.

- Vegetation surveys along the Condamine River were completed in 1993-94. This was the first step in an investigation into the causes of dieback along the Condamine. The research concentrated on understanding the causes and looking at solutions. The next stage will be a regeneration program.

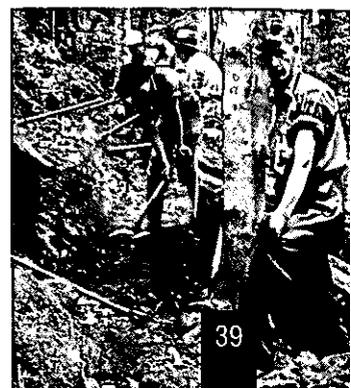
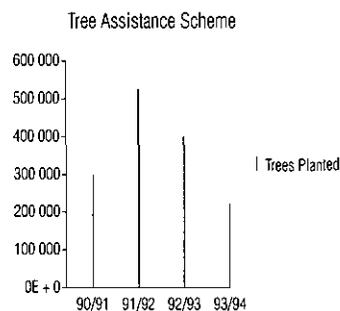


- More than 30 Western Queensland council employees attended a Forest Service Extension course on selection of species for arid zones held at Longreach. Participants came from an area that covered the Gulf of Carpentaria to Birdsville and have now undertaken to gather and supply data to expand the Western Queensland information on Treedat, the Forest Service's tree data base.

- Forestry Extension Officers have contributed to the development of adult education modules on the natural resource management aspects of Property Management Planning for use in Distance Education. Property Management Planning is a process directed at helping producers improve their management skills and prepare management strategies for their properties. It involves landholders in group workshops addressing personal, farm business management, production and natural resource management topics.

- On June 6, World Environment Day, Forestry Extension Officer Ashley Sewell won an Award of Excellence for his work on the Sunshine Coast. Ashley has been active in Treecare projects, student education and property management planning with regard to tree retention and replanting initiatives.

- During Landcare Month leaflets were developed and distributed to schools about weeds management and the dangers of unwittingly being an agent for spreading weeds. The leaflets, Don't Be an Agent for Weed Invasion, itemise lists of trees that are potential environmental weeds and for each species provide suggested alternatives.



# Community Services Program

" Another very important part played by the forests-for-the-welfare-of-the-nation-is-their use for recreational purposes. As the years pass and the natural vegetation is destroyed on settled lands, more and more people are finding in the forest areas a source of enjoyment and health."

**Annual Report 1935-6**



This Program incorporates services that provide safe outdoor recreational opportunities on Crown lands and waters managed by the Department, information and advice on primary production issues and educational material for schools and tertiary institutions.

program	sub-program	forest service responsibility
community services	natural resource recreation	shared with other business groups
	education info & advice	shared with other business groups

## natural resource recreation sub-program

### Description

Under the Natural Resource Recreation Sub-program, the DPI Forest Service draws on the existing infrastructure and multiple use management principles to provide a diverse range of recreational opportunities.

Recreational use of State Forests has increased rapidly since the early 1970s. In 1992 approximately 2.5 million people visited State Forests. Camping and picnicking were the most popular recreational use, but activities included commercial horse riding tours, wilderness rafting in north Queensland and school/community based education in Brisbane Forest Park.

Recreation must be carefully managed to protect the environment, provide for visitor safety, maintain the quality of recreational experiences and ensure compatibility with other State Forest values and uses.



### Goal

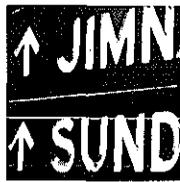
To ensure recreational opportunities provided are safe, sustainable and attuned to community needs.

### Achievements

#### New facilities

Around \$500 000 has been spent on new and improved recreation facilities and amenities on State Forests including:

- Interpretive and orientation signage for visitors at Charlie Moreland camping and day-use area at Kenilworth
- Upgraded walking tracks at Kauri Creek and Emerald Creek Falls near Atherton
- Planning is underway for long range walking tracks and associated bush camping facilities at Brisbane Forest Park
- Camping and day-use facilities at Mt Mee, Byfield and Cardwell. Establishing recreational standards and recreation planning
- Standards for construction, maintenance and servicing of forest and water storage recreational opportunities were established to ensure recreation areas are safe and well maintained; and are being applied.



- Forest and water storage recreation areas were classified according to the recreational opportunities they provide and assessed for maximum allowable use. This assists in managing areas for minimal impact on the natural resources and maximum social benefit.

- A draft Recreation Management Planning manual was produced to assist managers to integrate recreation management with DPI's other natural resources management objectives, and to provide guidance in all aspects of recreation management planning and design.

- Policy guidelines have been drafted for use of State Forests by commercial tour operators, the military and special activity groups to ensure the interests of both the DPI and the users are protected.

#### **Sub-program evaluation completed**

- An extensive evaluation of the Natural Resource Recreation Sub-program was completed in November 1993 and concluded that this program

remains appropriate, should be retained and possibly expanded. Feedback on the appropriateness of goals, strategies and performance indicators, will be incorporated in the Program's strategic plans in 1995.

- As part of the evaluation of this Sub-program, a survey of users was undertaken. This indicated a high level of client satisfaction with a range of land and water-based recreational services (76-82% were either satisfied or very satisfied).

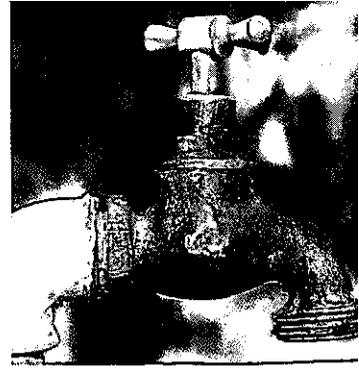
#### **Brisbane Forest Park**

- Land connecting Wivenhoe Dam to Brisbane Forest Park has been purchased for inclusion as State Forest in Brisbane Forest Park. This predominantly rural land extends the range of settings and activities the park can provide.

#### **Visitor safety issues**

- Particular hazards (waterfalls, slippery rock areas, trees in camping grounds and picnic areas and swimming areas) have been targeted for hazard removal (e.g. tree lopping), barricading (e.g. safety fencing) or warnings (e.g. signage) as appropriate. Patrolling is used both as a means of ensuring that hazards are identified and that first aid and assistance is available.





## Monitoring environmental impacts of recreation use

- The environmental impacts of recreation is continually monitored and managed. Total visitation to State Forest recreation areas was estimated at around 2.5 million, and this use is increasing. Camping statistics indicate a steady increase with around 110 000 visitor nights of camping provided in 1993-94.

- A major visitor impact and management study was commenced at Tully Gorge in the Wet Tropics of North Queensland. Expected outcomes include: a review of the existing commercial operator permit structure; identification of physical and environmental limitations to growth; identification of areas suitable for intense development; and a management strategy for future use and development.

## Youth Conservation Corps

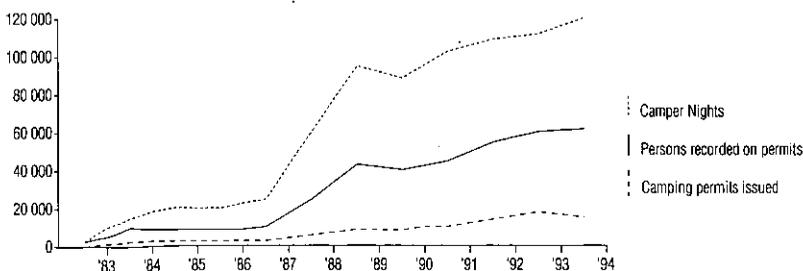
- Continued support was given to the youth employment initiative, the Youth Conservation Corps, through walking track and recreation facility development projects at Daisy Hill, Bare Hill, Mt Mee, Kenilworth and Byfield State Forests.

## Community consultation

- Significant and ongoing consultation has been undertaken in the development of a Draft Lake Tinaroo-Danbulla Management Plan. The plan is a joint initiative between the DPI Forest Service and Water Resources business groups, the Atherton Shire Council and the Wet Tropics Management Authority and aims to protect and conserve important natural and cultural resources and assist future management of recreation.

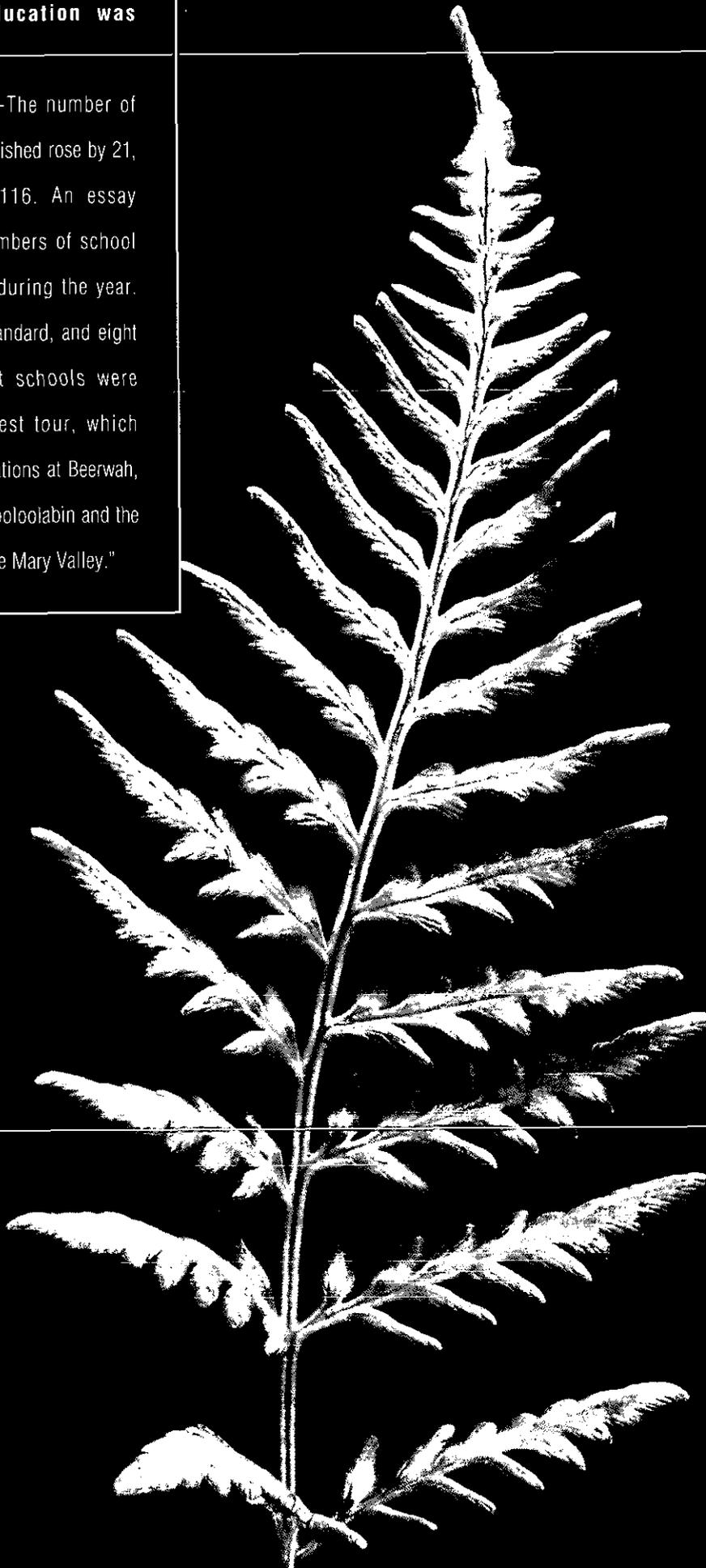
- Ongoing liaison has been undertaken with commercial tourism operators in north Queensland through the Tourism Liaison Group. The primary focus has been permit systems, accreditation and developing systems for more effective liaison between the Forest Service and other tourism operators and organisations.

Camping Data Trends



**By 1939, forest education was underway:**

"School Forestry Plots -The number of school forestry plots established rose by 21, bringing the total to 116. An essay competition open to members of school project clubs was held during the year. Essays were of a good standard, and eight students from different schools were selected to make a forest tour, which embraced the exotic plantations at Beerwah, the hardwood forests of Cooloolabin and the hoop pine plantations of the Mary Valley."



# education information & advice sub-program

## Description

A number of business groups deliver services and information to the community under this subprogram. The DPI Forest Service makes a major contribution by:

- providing the community with information and assistance to encourage the effective use of trees on farms;
- providing an urban-based advisory service for pest and disease control on trees and shrubs;
- providing a range of educational materials for use by teachers in school curriculum development; and
- providing information to increase the general public's awareness of the values and benefits of well managed forests.

## Goals

To provide relevant and timely advice to the public and to educational institutions in connection with the forestry sector.

To apply the 'user pays' principle where the direct beneficiary of the service is identifiable and fee collection is cost-effective.

## Achievements

Meeting community needs for education and information

- The Forest Service initiated and co-ordinated the largest forest-based environmental education event ever held in Australia. Almost 4000 schoolchildren took part in four days of experiential forest education activities at Mt Mee during the week of World Forestry Day, March 21.
- The event generated a number of forest-based educational activities that have been further developed for use by schools during field trips to State Forests. A book of activities including guidelines, task sheets and background information is now available from Forest Service offices for use during school visits to State Forests.





- Forest Service staff operated an activity base at Brisbane's Southbank as part of school World Environment Day activities that drew more than 250 students to learn about appropriate ways recreational visitors can care for forests.

- New facilities established at three state forest sites, Kenilworth, Water Park Creek and Tinaroo, are designed to increase community awareness and understanding of the role of forest management in south-east Queensland.

- Joint DPI Forest Service and Geography Teachers Association of Queensland workshops allowed high school teachers to participate in the development and refinement of forest education materials for use in schools.



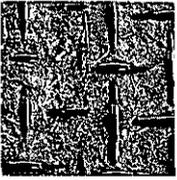
- *Between the Leaves*, a departmental journal on forestry topics, now includes a page on school-based environmental initiatives. These report on revegetation projects and educational materials developed in and for schools.

- For Arbor Day in central Queensland the DPI Forest Service, Greening Australia and the Australian Trust for Conservation Volunteers repeated their successful travelling educational program first developed last year. Remote students learnt more about the community benefits of trees and forests and more than 400 trees were planted.

- A history of the Forest Service since its inception in Queensland was completed during 1993-94. The history, titled *Growing Up, Forestry in Queensland*, was written by established author and historian Peter Taylor.

- Forest Service personnel contributed local knowledge and advice to the development of a Rainforest Kit for primary schools. The kit will give advice to school teachers on suitable venues for school excursions to learn in and about rainforests.

- Teachers working for the Queensland Timber Board on school-based education were trained by Forest Service staff at Brisbane Forest Park and other State Forests in regeneration and selective logging procedures. These teachers visit schools to teach about timber production and sound forest management.



### **Future directions**

- Field trips and workshops are planned to meet an identified need for further training in forestry education by forestry trainees and teacher trainees. The workshops will concentrate on understanding of forest management issues.

### **Vocational forest education**

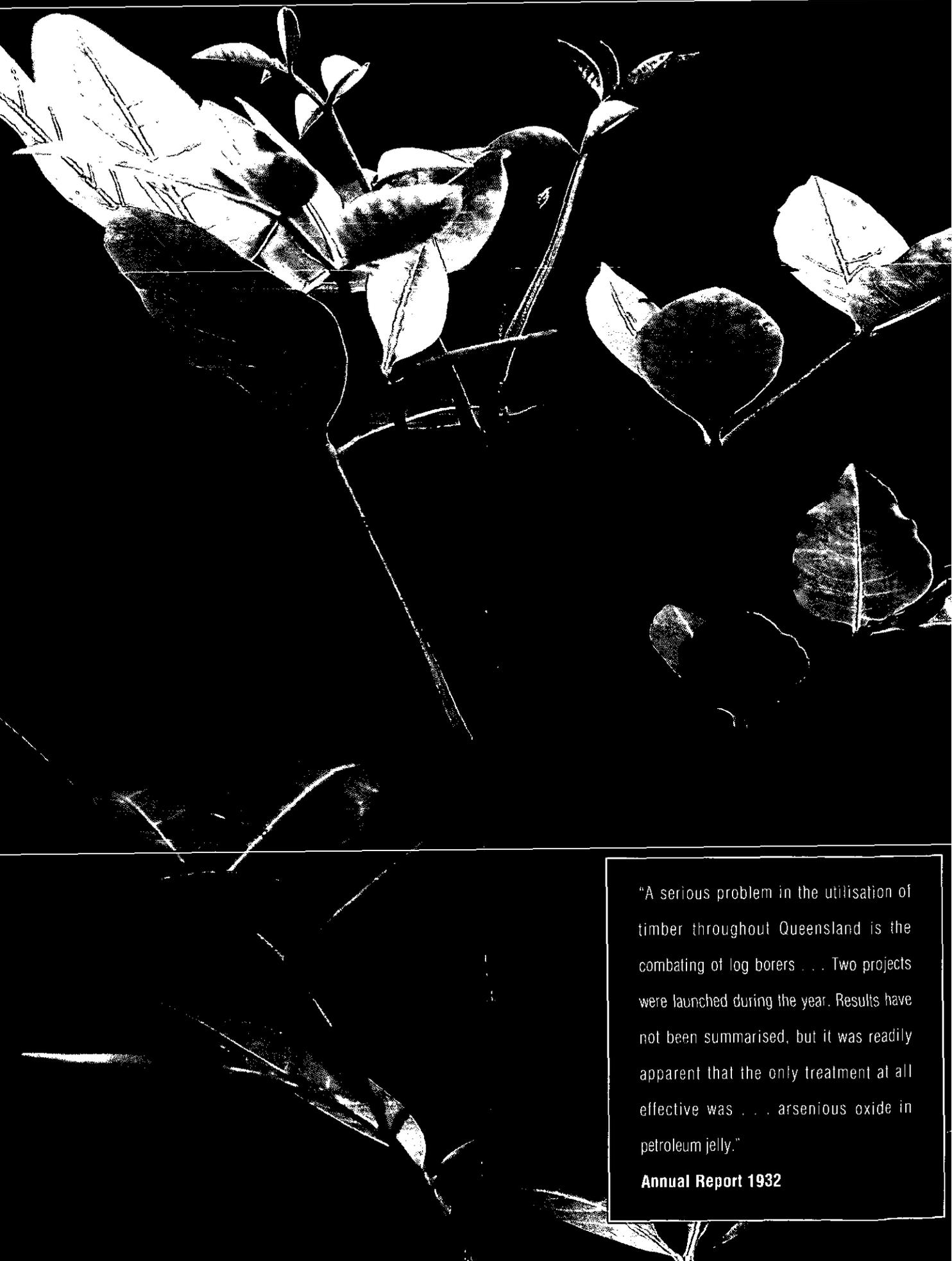
- An increased demand for the Forestry Training Centre's intensive chainsaw instruction course has resulted from the increasing importance placed on Workplace Health and Safety, especially regarding competency with chainsaw use. The most frequent course users are local authorities, other Government departments and TAFE colleges.
- The Anutech Forestry Planning and Management Course in 1993 drew participants from 11 different countries. The annual course is jointly offered by the Forestry Training Centre and the Australian National University Participants spend the first three weeks of an 11 week course at the Forestry Training Centre at Gympie. The course emphasises forest management procedures and practices.
- A Rainforest Interpretation Workshop held at Gympie in July 1993 provided training sessions for forestry personnel on interpreting rainforests. Guest

lecturers included visitors from Tasmania who shared their experiences in rainforest interpretation.

### **Nursery Production**

- Nursery stock produced under the Community Services Program in 1993-94 was mainly used for Landcare projects. Around 1.2 million trees were produced and for the first time nursery production returned a profit, with a surplus of revenue over expenditure of \$137 000.





"A serious problem in the utilisation of timber throughout Queensland is the combating of log borers . . . Two projects were launched during the year. Results have not been summarised, but it was readily apparent that the only treatment at all effective was . . . arsenious oxide in petroleum jelly."

**Annual Report 1932**

This Program helps rural-based industries to become more effective in international and domestic markets. In co-operation with other State and Commonwealth instrumentalities, it provides strategies to develop export trade and international joint ventures, providing market intelligence and developing infrastructure.

program	sub-program	forest service responsibility
product development & marketing	product quality & market assurance	shared with other business groups

## product quality & market assurance sub-program

### Description

The purpose of the Product Quality and Market Assurance Sub-program is to provide cost effective services which protect Queensland from the introduction and spread of unwanted pests and diseases and maintain high consumer and market acceptance of the quality and safety of timber products.

### Goals

To facilitate the sale and use of timber products which conform to community and client requirements of safety and quality.

To protect Queensland's markets, consumers, primary industries and environment against the introduction and spread of unwanted pests and diseases.

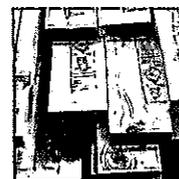
### Achievements

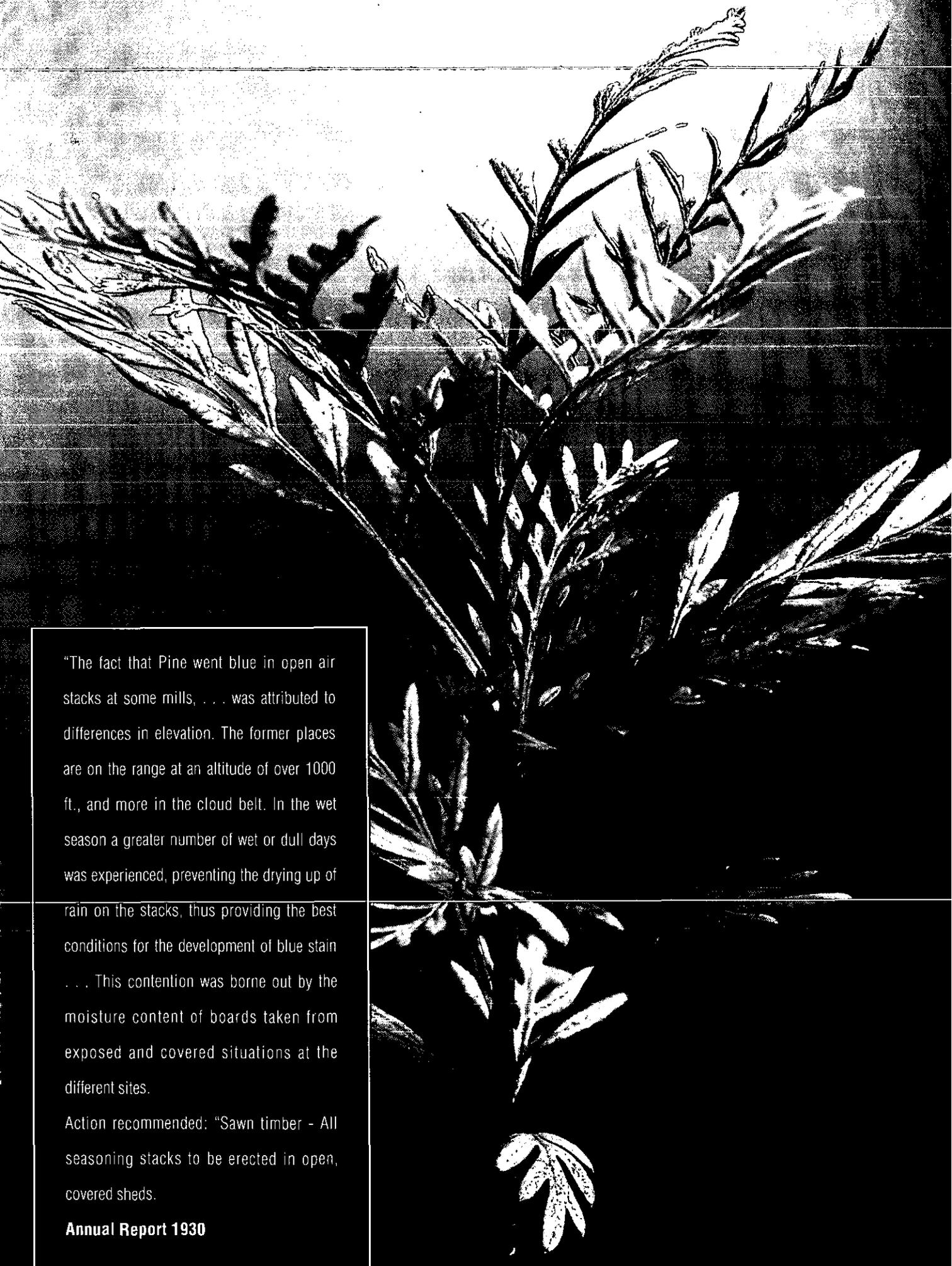
Controlling pests and diseases in timber

- Work to control the spread of the West Indian dry-wood termite continued at levels similar to last year's, with seven new areas identified compared with six in 1991-92. Buildings in these areas were fumigated using methyl bromide. Ongoing

surveillance is essential because the pest is capable of establishing itself over a large area of Queensland. (In Florida, losses are estimated at more than \$100m annually.)

- Five major city buildings were fumigated for West Indian drywood termites (*Cryptotermes brevis*) between September and November 1993, the Lands Administration and Treasury Buildings, the Queensland Club, the Backpackers Hostel in Brunswick Street and the old Department of Primary Industries Building. Outer city buildings included the Windsor State School and 10 houses.





"The fact that Pine went blue in open air stacks at some mills, . . . was attributed to differences in elevation. The former places are on the range at an altitude of over 1000 ft., and more in the cloud belt. In the wet season a greater number of wet or dull days was experienced, preventing the drying up of

rain on the stacks, thus providing the best conditions for the development of blue stain . . . This contention was borne out by the moisture content of boards taken from exposed and covered situations at the different sites.

Action recommended: "Sawn timber - All seasoning stacks to be erected in open, covered sheds.

**Annual Report 1930**

This Program assists Queensland's primary production enterprises through research, extension and regulation activities. Research develops appropriate technologies; extension facilitates the adoption of new technologies by primary producers and enhances their decision-making skills; and regulation identifies and contains biological and chemical threats.

program	sub-program	forest service responsibility
industry services	forestry & timber	total

## forestry & timber sub-program

### Description

Forestry and Timber is a Sub-program of the Industry Services Program. The Sub-program's two major components are:

- forestry - the management of private forests and the establishment, maintenance and management of private forest plantations, for commercial gain, and
- timber - the manufacture and processing of forest products including sawn timber, panel products and round timbers.

### Goals

- To encourage the development of private commercial forestry resources throughout the State.
- To provide an effective timber research and advisory service based on the requirements of the timber processing industries.
- To apply the 'user pays' principle where the direct beneficiary of the service is identifiable and fee collection is cost effective.

### Achievements

#### Co-operation with industry

- The DPI Forest Service aims to achieve at least 50% industry funding of its timber research work in line with recommendations of the Public Sector Management Commission in its 1991 review of the Department of Primary Industries. Industry funding for DPI Forest Service timber research services during 1993-94 remained close to our funding target at 48.5%.





- Queensland Rail funded research into boron protection of timber has the potential to deliver considerable savings through increasing the service life of new and existing sleepers. In high concentrations, boron protects timber against decay and insect attack. The research used computer enhanced imaging to check the extent of boron penetration from boron rods installed in railway sleepers near Mundubbera.

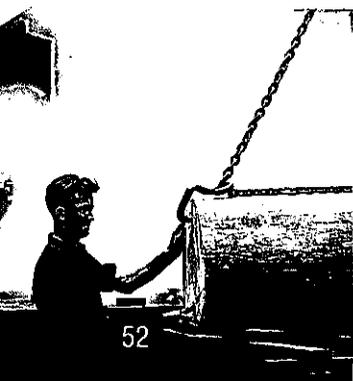
- The Western Wood Products Association of the United States of America commissioned the Department to run trials on prefabricated timber bridge decking that have considerable potential for cost savings and for reducing the time timber bridges are out of service. The first trial of decking has been installed on a bridge near Imbil.

Recommendations from a Forest Service long-term *monitoring project will assess durability and determine the extent to which this technology will be adopted by Queensland Transport.*

### **Furthering Timber Research**

- New solar kiln designs have been developed from an original concept designed by staff at Timber Research. The new designs feature larger capacity, reduced construction cost and fork lift loading. These designs have found favour among sawmillers in Queensland and interstate, as well as a furniture manufacturer in Brisbane.

- The Sub-program's ability to undertake strength testing of timber has been extended with the design and construction of a test rig capable of a 30 tonne load. The rig can accommodate beams up to 4.8 metres long and 300mm by 100mm sections.





- Pilot trials demonstrated that the heartwood of slash and Caribbea pine has a natural resistance to termite attack. The chemical extractives providing this resistance have been identified and further experimentation is being conducted to characterise the different pine species according to their extractive content. The research has the potential to provide timber with protection from termites using these natural chemical extractives.

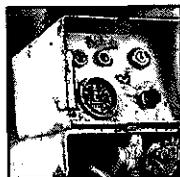
- Safer and more effective chemical methods were developed during the year for determining the difference between sapwood and heartwood in a range of timber species. The method relies on a colour indicator method.

- Development of timber surface roughness measurement equipment has application in the pine industry for use in optimising the rate of application of anti-sapstain chemicals. The system is being pursued to measure veneer roughness for use in glue application.

- Research into the effects of drying temperature on heartwood permeability, and the ability to penetrate this material with CCA preservative, has shown promising results. Good penetration has been attained, however fixation of preservative is poor. Work is in progress to investigate this further.

### **Tree Planting Task Force**

- A Policy Option Paper has been developed by the Tree Planting Task Force in relation to the planting of trees by the private sector for wood production and Natural Resource Management objectives. The paper has been written to raise issues and options. It is intended that the paper be disseminated for public comment in 1994-95.





## **FINANCIAL APPENDIX 1:**

### **DESCRIPTION OF FUNDS**

#### **Forestry Fund:**

In accordance with the requirements of the Constitution Act 1867 and the Financial Administration & Audit Act 1977, financial transactions of the DPI Forest Service are recorded in the Forestry Fund. This fund incorporates functions of the DPI Forest Service, including management and development of State Forests, purchase and construction of assets and plant, revenue from the sale of forest products and expenditure in connection with the marketing of such products, interest and redemption on loans, maintenance of plant and all other Service expenditure and receipts. The Fund includes contributions from the Consolidated Fund.

#### **Brisbane Forest Park Fund:**

This fund is established under the provisions of the Brisbane Forest Park Act 1977 to record transactions in connection with the planning, development and maintenance of the Brisbane Forest Park area for outdoor recreation compatible with the preservation of the Park's natural values. The Fund is financed by the provision of monies from the Consolidated Fund and self generated funds, to cover salaries, operating costs and for development works of a capital nature.

## **FINANCIAL APPENDIX 2:**

### **Basis of Accounts**

Receipts and payments are brought to account on a cash basis, that is receipts and payments are recorded on a basis of cash received and payments made in the financial year. Cash accounting is on a gross basis, and receipts and payments are not offset.

The DPI Forest Service is currently working towards the introduction of the accrual method of accounting.

### **Program Management**

All transactions are recorded on a program basis.

### **Capital Expenditure**

Under the cash basis of financial reporting, capital expenditure is treated as a charge in the year of payment.

### **Materiality**

Explanatory notes are given on matters which, in the opinion of the Executive Director (Forest Service), are of significance in the context of accountability, adequate disclosure and meaningful reporting.

### **Financial Statements**

Financial Statements are prepared in terms of prescribed legislative requirements and are in accordance with Government accounting principles and practices.

## FINANCIAL APPENDIX 3:

### FORESTRY FUND STATEMENT OF RECEIPTS & EXPENDITURE

RECEIPTS			EXPENDITURE		
Actual 1991/92 \$'000	Actual 1992/93 \$'000	Actual 1993/94 \$'000	Actual 1991/92 \$'000	Actual 1992/93 \$'000	Actual 1993/94 \$'000
6,326	12,892	15,094	<b>BALANCE 1 JULY</b>		
<b>PROGRAMS</b>					
<b>NATURAL RESOURCE MANAGEMENT</b>					
3,792	4,605	5,374	Transfer From Consolidated Fund - Recurrent		
<b>Forest Protection &amp; Rehabilitation</b>					
186	480	1,352	2 883	3 840	5 285
<b>Integrated Catchment Management</b>					
	8	11	204	2 405	1 739
<b>3,978</b>	<b>5,093</b>	<b>6,737</b>	<b>3 087</b>	<b>6 245</b>	<b>7 024</b>
<b>INDUSTRY SERVICES</b>					
Transfer From Consolidated Fund - Recurrent					
<b>Forestry &amp; Timber</b>					
401	634	525	1 506	1 269	1 637
<b>Integrated Production Systems</b>					
			862	114	
<b>2,011</b>	<b>1,794</b>	<b>1,631</b>	<b>2 368</b>	<b>1 383</b>	<b>1 637</b>
<b>PRODUCT DEVELOPMENT &amp; MARKETING</b>					
Transfer From Consolidated Fund - Recurrent					
<b>Trade and Business</b>					
245	245	1,249	1 233	66	
<b>Product Quality &amp; Market Assurance</b>					
1,069		13			1 087
<b>1,314</b>	<b>245</b>	<b>1,262</b>	<b>1 233</b>	<b>66</b>	<b>1 087</b>
<b>COMMUNITY SERVICES</b>					
Transfer From Consolidated Fund - Recurrent					
7,352	6,540	5,847	Transfer From Consolidated Fund - Capital		
549	547	547	<b>Natural Resource Recreation</b>		
1,375	1,621	2,572	4 610	6 594	6 519
<b>Education, Information &amp; Advice</b>					
1,702	1,807	1,499	4 729	4 099	3 439
<b>Consumer Protection</b>					
10	15		425	542	
<b>10,988</b>	<b>10,530</b>	<b>10,465</b>	<b>9 764</b>	<b>11 235</b>	<b>9 958</b>
<b>FOREST PRODUCTION</b>					
Transfer From Consolidated Fund - Recurrent					
2,170	1,739		Transfer From Consolidated Fund - Capital Repayable		
8,023	1,982		Transfer From Consolidated Fund - Recurrent (I&R)		
15,632	15,632	15,632	<b>Plantation Production</b>		
38,218	48,648	59,733	63 947	66 219	72 912
<b>Native Forest Production</b>					
15,436	8,213	8,262	11 644	9 389	10 489
<b>Other Resource Sales</b>					
3,960	5,401	4,687	3 121	2 537	2 653
<b>83,439</b>	<b>81,615</b>	<b>88,314</b>	<b>78 712</b>	<b>78 145</b>	<b>86 054</b>
<b>101,730</b>	<b>99,277</b>	<b>108,409</b>	<b>95 164</b>	<b>97 074</b>	<b>105 760</b>
<b>BALANCE 30 JUNE</b>			<b>12 892</b>	<b>15 095</b>	<b>17 743</b>

## FINANCIAL APPENDIX 4:

### BRISBANE FOREST PARK FUND STATEMENT OF RECEIPTS AND EXPENDITURE

RECEIPTS			EXPENDITURE			
Actual 1991/92 \$'000	Actual 1992/93 \$'000	Actual 1993/94 \$'000		Actual 1991/92 \$'000	Actual 1992/93 \$'000	Actual 1993/94 \$'000
164	552	414	<b>BALANCE 1 JULY</b>			
			<b>PROGRAM</b>			
			<b>COMMUNITY SERVICES</b>			
930	930	761	Transfer From Consolidated Fund - Recurrent			
646	646	646	Transfer From Consolidated Fund - Capital			
			<b>Natural Resource Recreation</b>			
409	319	242	Sub Program Activity	1,597	2 033	1 736
			<b>Education, Information &amp; Advice</b>			
			Sub Program Activity			59
<b>1 985</b>	<b>1 895</b>	<b>1 649</b>	<b>Total Community Services</b>	<b>1,597</b>	<b>2 033</b>	<b>1 795</b>
<b>1 985</b>	<b>1 895</b>	<b>1 649</b>	<b>Total Programs</b>	<b>1,597</b>	<b>2 033</b>	<b>1 795</b>
			<b>BALANCE 30 JUNE</b>	<b>552</b>	<b>414</b>	<b>268</b>

1. The funds of the Brisbane Forest Park were transferred from the Department of Environment and Heritage to the Department of Primary Industries by Order in Council dated 7 December 1989. The administration of the Brisbane Forest Park was transferred to the DPI Forest Service from 1 January 1990.

2. A "notional" interest and redemption payment (1993/94 \$15.632m) is effected via a Special Allocation from the Consolidated Fund which is then credited back to the same fund. In 1993/94 an additional \$8m was paid to Treasury from revenues generated.

## FINANCIAL APPENDIX 5:

### STATEMENT OF LOAN INDEBTEDNESS AS AT 30.6.93

Source of Finance and Servicing Fund \$'000	1994 \$'000	1993 \$'000	1992 \$'000	1991 \$'000
State Government (Loan Fund)				
Forestry Fund	374 882	375 100	373 118	365 095
State Government (Treasury Special Project Fund)				
Forestry Fund	29 317	29 643	29 930	30 183
Brisbane Forest Park Fund			118	154
Commonwealth Government Softwood Loans				
Forestry Fund	28 065	26 375	24 941	23 734
<b>Total</b>	<b>432 264</b>	<b>431 118</b>	<b>428 107</b>	<b>419 166</b>

**Note:**

Debt service charges on Commonwealth and Special Projects Fund Advances have been met in full as they became due. However, debt service charges on Loan Fund advances have not been met in full since 1960-61. Unpaid interest on Loan Fund Advances amounting to \$316.4m has not been capitalised. An amount of \$2.2m in Commonwealth Softwoods Loans represents interest accruing on monies advanced under the Softwood Forestry Agreements Act 1978. The Act provides for the payment of interest to be deferred and capitalised for the first 15 years.

## STATISTICAL APPENDIX 1:

### RESERVATION FIGURES FOR THE YEAR ENDED 30 JUNE 1994

<b>State Forests</b>	<b>No. of Reservations</b>	<b>Area(ha)</b>
Figures as at 1 July 1993	485	3 827 883
Crown land declared State Forest		
Crown Land declared State Forest and added to existing State Forest		58
Timber Reserves declared State Forest		
Timber Reserves declared State Forest and added to existing State Forest		
State Forests revoked	- 1	- 650
State Forests partially revoked		- 1 788
Areas excluded for road and railway purposes		
Recomputation of Boundary		- 5
Amalgamation of Existing State Forests		
<b>Total as at 30 June 1994</b>	<b>484</b>	<b>3 825 498</b>

<b>Timber Reserves</b>	<b>No. of Reservations</b>	<b>Area(ha)</b>
Figures as at 1 July 1993	64	485 078
Timber Reserves declared State Forest		
Timber Reserves declared State Forest and added to existing State Forest		
Timber Reserves revoked	- 1	- 75
Timber Reserves partially revoked		
<b>Total as at 30 June 1994</b>	<b>63</b>	<b>485 003</b>

**STATISTICAL APPENDIX 2:**

**NET AREA OF SOFTWOOD PLANTATION ESTABLISHED 1 JULY 1993 TO 30 JUNE 1994 (hectares)**

District	NATIVE CONIFERS			EXOTIC CONIFERS			Total 1993-1994	Total 1992-1993
	First Rotation	Second Rotation	Total Native Conifers	First Rotation	Second Rotation	Total Exotic Conifers		
Atherton	-	15	15	-	-	0	15	93
Beerburum	-	-	0	95	518	613	613	599
Brisbane	-	-	0	-	-	0	0	0
Dalby	-	-	0	-	74	74	74	16
Gympie	-	-	0	94	553	647	647	664
Imbil *	-	297	297	-	-	0	297	239
Ingham	-	-	0	260	-	260	260	326
Maryborough	-	-	0	-	678	678	678	1 395
Monto	-	15	15	-	-	0	15	0
Rockhampton	1	-	1	100	-	100	101	122
Yarraman	-	215	215	-	-	0	215	156
<b>Total 1993-94</b>	<b>1</b>	<b>542</b>	<b>543</b>	<b>549</b>	<b>1 823</b>	<b>2 372</b>	<b>2 915</b>	<b>3 610</b>

\* Murgon District plantations were amalgamated with Imbil District in 1992-93.

**STATISTICAL APPENDIX 3:**

**NET AREA OF SOFTWOOD PLANTATION AS AT 30 JUNE 1994 (hectares)**

District	NATIVE CONIFERS			EXOTIC CONIFERS					Total 1993-94	Total 1992-93
	Hoop Pine	Other Native Conifers	Total Native Conifers	Slash Pine	Caribbean Pine	Pinus Hybrids	Other Exotic Conifers	Total Exotic Conifers		
Atherton	1 025	108	1 133	2	2 262	0	39	2 303	3 436	3 423
Beerburrum	11	2	13	11 415	3 492	2 456	678	18 041	18 054	17 878
Brisbane	1 596	7	1 603	185	4	0	0	189	1 792	1 792
Dalby	15	1	16	219	0	1	2 129	2 349	2 365	2 371
Gympie	321	24	345	21 891	10 879	4 063	141	36 974	37 319	37 090
Imbil *	21 086	317	21 403	14	102	0	283	399	21 802	21 670
Ingham	266	2	268	4	10 196	53	109	10 362	10 630	10 391
Maryborough	590	0	590	24 143	21 619	5 148	33	50 943	51 533	51 137
Monto	4 081	4	4 085	13	3	0	9	25	4 110	4 107
Rockhampton	5	1	6	706	5 747	212	42	6 707	6 713	6 614
Yarraman	15 797	118	15 915	479	397	0	1 501	2 377	18 292	18 079
<b>Total 1993-94</b>	<b>44 793</b>	<b>584</b>	<b>45 377</b>	<b>59 071</b>	<b>54 701</b>	<b>11 933</b>	<b>4 964</b>	<b>130 669</b>	<b>176 046</b>	
Total 1992-93	44 416	595	45 011	60 026	54 411	9 997	5 107	129 541		174 552

\* Murgon District plantations were amalgamated with Imbil District in 1992-93.

**STATISTICAL APPENDIX 4:**

**NET AREA OF BROADLEAF PLANTATION AS AT 30 JUNE 1994 (hectares)**

<b>District</b>	<b>Hardwood Species *</b>	<b>Miscellaneous Species **</b>	<b>Total 1993-94</b>	<b>Total 1992-93</b>
Atherton	190	7	197	198
Beerburrum	196	37	233	276
Brisbane	95	0	95	104
Dalby	1	2	3	5
Gympie	750	32	782	791
Imbil ~	66	6	72	78
Ingham	16	30	46	46
Maryborough	2	67	69	69
Monto	1	0	1	1
Rockhampton	1	5	6	6
Yarraman	86	30	116	116
<b>Total 1993-94</b>	<b>1 404</b>	<b>216</b>	<b>1 620</b>	
Total 1992-93	1 467	223		1 690

\* Mostly eucalypt and native rainforest species.

\*\* Mostly small trial research plantings.

~ Murgon District plantations were amalgamated with Imbil District in 1992-93.

**STATISTICAL APPENDIX 5:****OPERATIONAL STATISTICS 1993-94**

<b>Operation</b>	<b>Total 1993-94</b>	<b>Total 1992-93</b>
Softwood Plantation Establishment/Re-establishment -		
Native	543	415
Exotic	2 372	3 165
Weed Control -		
Native Pine Plantation (hectares)	7 744	9 079
Exotic Pine Plantation (hectares)	15 941	15 310
Fertilizing -		
Established (hectares)	3 180	2 554
Maintenance (hectares)	490	525
Pruning -		
Low (hectares)	1 985	2 005
High (hectares)	2 332	3 181
Wildfires on State Forests -		
Native Forests (hectares burnt)	22 424	45 131
Plantations (hectares burnt)	101	3 649
Native Forest Treated -		
Eucalypt Forest (hectares)	127	128
Cypress Pine (hectares)	536	559
Prescribed Burning -		
Native Forest - Eucalypt (hectares)	51 488	48 247
Native Forest - Cypress (hectares)	29 900	42 425
Plantation - Exotic (hectares)	21 432	11 984

## STATISTICAL APPENDIX 6:

### MILLING TIMBER REMOVALS FROM NATIVE FORESTS 1993-94 (gross measure m3)

#### CROWN NATIVE FORESTS

District	Hardwoods and Scrubwoods	Cypress Pine	Other Conifers	Total 1993-94	Total 1992-93
Atherton	1 990	-	-	1 990	10 272
Beerburrum	22 025	-	-	22 025	28 292
Brisbane	3 665	153	-	3 818	4 572
Dalby	10 830	54 735	-	65 565	59 071
Gympie	6 982	-	-	6 982	2 275
Imbil *	29 031	-	773	29 804	37 718
Ingham	12 768	-	-	12 768	14 306
Maryborough	23 605	5	-	23 610	15 280
Monto	31 990	-	-	31 990	30 717
Rockhampton	47 412	5 554	-	52 966	47 142
Roma	8 341	77 926	-	86 267	82 437
Yarraman *	7 705	-	-	7 705	11 732
<b>Total 1993-94</b>	<b>206 344</b>	<b>138 373</b>	<b>773</b>	<b>345 490</b>	
Total 1992-93	226 469	116 556	789		343 814

\* Murgon District native forests were amalgamated with Imbil and Yarraman Districts in 1992-93.

#### PRIVATE NATIVE FORESTS

District	Hardwoods and Scrubwoods	Cypress Pine	Other Conifers	Total 1993-94	Total 1992-93*
Atherton	6 695	-	1	6 696	12 197
Beerburrum	13 838	-	512	14 350	15 132
Brisbane	26 503	15	4 559	31 077	28 322
Dalby	24 999	26 549	252	51 800	47 400
Gympie	17 469	7	1 158	18 634	20 155
Imbil ~	4 268	-	1	4 269	4 542
Ingham	31 874	-	464	32 338	31 722
Maryborough	38 964	5	148	39 117	43 443
Monto	45 129	7 080	12	52 221	45 403
Rockhampton	35 763	101	12	35 876	25 483
Roma	1 431	27 866	-	29 297	24 159
Yarraman ~	34 566	80	624	35 270	41 503
<b>Total 1993-94</b>	<b>281 499</b>	<b>61 703</b>	<b>7 743</b>	<b>350 945</b>	
Total 1992-93*	280 335	50 006	9 120		339 461

\* Corrected figures

~ Murgon District native forests were amalgamated with Imbil and Yarraman Districts in 1992-93.

## STATISTICAL APPENDIX 7:

### MILLING TIMBER REMOVALS FROM PLANTATIONS 1993-94 (gross measure m3)

#### CROWN PLANTATION TIMBERS

District	Native Conifers	Exotic Conifers	Non-Conifers	Total 1993-94	Total 1992-93
Atherton	17 176	200	-	17 376	11 988
Beerburum	-	242 640	45	242 685	193 013
Brisbane	2 703	-	-	2 703	2 967
Dalby	-	23 877	-	23 877	18 396
Gympie	-	151 775	3 319	155 094	111 580
Imbil *	227 623	178	831	228 632	190 259
Ingham	83	5 835	88	6 006	2 218
Maryborough	-	144 581	-	144 581	160 510
Monto	10 214	21	-	10 235	762
Rockhampton	-	1 680	27	1 707	281
Yarraman	138 438	3 921	-	142 359	125 649
<b>Total 1993-94</b>	<b>396 237</b>	<b>574 708</b>	<b>4 310</b>	<b>975 255</b>	
Total 1992-93	327 607	485 040	4 976		817 623

\* Murgon District plantations were amalgamated with Imbil District in 1992-93.

#### PRIVATE PLANTATION TIMBERS

District	Native Conifers	Exotic Conifers	Total 1993-94	Total 1992-93*
Atherton	5	15	20	5
Beerburum	-	67 619	67 619	87 237
Brisbane	-	19 923	19 923	16 154
Dalby	-	14 511	14 511	12 796
Gympie	-	-	0	-
Imbil ~	7	276	283	383
Ingham	4	114	118	54
Maryborough	421	12	433	790
Monto	120	11	131	90
Yarraman	-	2 640	2 640	40
<b>Total 1993-94</b>	<b>557</b>	<b>105 121</b>	<b>105 678</b>	
Total 1992-93*	1 702	115 847		117 549

\* Corrected figures

~ Murgon District plantations were amalgamated with Imbil District in 1992-93.

N.B. Values shown in the above tables have been estimated due to incomplete statistics being available at time of compilation.

**STATISTICAL APPENDIX 8:****PULPWOOD REMOVALS 1993-94 (gross measure m3)****CROWN PULPWOOD REMOVALS**

<b>District</b>	<b>Plantations</b>	<b>Native Forests</b>	<b>Total 1993-94</b>	<b>Total 1992-93</b>
Beerburrum	-	-	0	507
Gympie	39 772	-	39 772	105 207
Maryborough	100 250	-	100 250	30 839
Yarraman	-	-	0	1 309
<b>Total 1993-94</b>	<b>140 022</b>	<b>0</b>	<b>140 022</b>	
Total 1992-93	136 553	1 309		137 862

**STATISTICAL APPENDIX 9:****MISCELLANEOUS REMOVALS FROM CROWN LANDS 1993-94**

<b>Product Group</b>	<b>Approx. Log Volume (m3)</b>	<b>Value (\$)</b>
Railway sleepers & like timber	9 707	233 266
Landscaping and fencing timbers	13 287	273 473
Mining timbers	1 784	7 859
Girders, corbels, piles and sills	10 504	186 475
Plantation roundwood	54 993	719 878
Plantation poles	-	-
Hardwood poles	7 001	716 841
Hardwood round timber	39 837	185 577
Sandalwood	427	766 278
<b>Total</b>	<b>137 540</b>	<b>3 089 647</b>
Quarry material	1 593 641	\$1 922 901
Minor Forest Products		\$ 186 480

