

THE SCOTTISH FORESTRY TRUST



ANNUAL REPORT 1996-97

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**THE
SCOTTISH FORESTRY
TRUST**

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1996-97**

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THE SCOTTISH FORESTRY TRUST AND ITS OBJECTIVES

The Scottish Forestry Trust is a charitable trust established in 1983 to promote education, training and research in forestry and silviculture.

The Trustees have determined that, for the time being, the Trust's major contribution should be towards funding research projects, although, as opportunities arise, educational and training projects are also supported. A small proportion of the budget is set aside for publications and travel.

The Trust's primary objective is to support private sector forestry by contributing to the scientific, technical and economic information it requires to enable it to develop its role in U.K. forestry. Forestry is defined as the forestry industry as a whole, including its contribution to landscape, recreation, wildlife and the environment.

Projects in all of the sciences which bear upon forestry are supported by the Trust. High priority is given to proposals which address industry needs related to policy formation and execution, and to broad management questions. In general terms preference is given to studies of a more applied nature where the benefits are more immediately available to the industry. Notwithstanding that, fundamental work, whose potential to resolve outstanding problems, or reveal new opportunities and possibilities is thought to be high, is also supported.

TRUSTEES 1996 - 1997

Chairman

Sir D.W.N. Landale, K.C.V.O.
A.F. Bloomfield, O.B.E.
J.R. Firn*
Capt. W.F.E. Forbes (to 31/12/96)
A.N.G. Laing*
Dr D.C. Malcolm, O.B.E.**
W.L. Mason (from 1/7/96)
Dr J.A. Petty*
Dr D. A. Rook (to 30/6/96)
N.D.H. Sanders
Sir M. Strang Steel, Bt (from 1/1/97)
*Member of Projects and Research Committee
** Chairman, Projects and Research Committee

STAFF

Director

John Eadie (to 30/6/96)
Dr David A. Rook (from 1/7/96)
Christine Bates

Director's Secretary

LEGAL ADVISER

D.M. Hunter,
Henderson Boyd Jackson, W.S.,
19 Ainslie Place,
Edinburgh, EH3 6AU

INVESTMENT MANAGEMENT

Stewart Ivory & Co. Ltd.,
45 Charlotte Square,
Edinburgh, EH2 4HW

AUDITORS

Brown, Campbell & Co.
16 Great Stuart Street,
Edinburgh, EH3 7TN

REGISTERED OFFICE

5 Dublin Street Lane South,
Edinburgh, EH1 3PX
Tel: 0131 478 7044
Fax: 0131 538 7222
Email: sft@ednet.co.uk

ACKNOWLEDGEMENTS

The Chairman and Trustees wish to acknowledge with gratitude the generosity of the following donors to the Trust's funds:

£100 to £1000 Callendar Charitable Trust
Lord Rosebery's Charitable Trust
The Duke of Northumberland

CHAIRMAN'S FOREWORD

John Eadie retired as Director of the Trust at the end of June 1996 having been Director since October 1987. He brought to the post wisdom, and wealth of experience and knowledge about land use and rural economies from his previous position as the Director of the Hill Farming Research Organisation. During this time he had a profound effect in shaping and consolidating the Trust by encouraging sound scientific projects and an enlightened outlook as well as running the Trust on sound management principles. Regrettably John died on 26 February 1997. My fellow Trustees and I will strive to continue to build on these achievements.

Dr David Rook became Director in July and during the latter part of the year a review of the Trust was initiated which has involved not only the Trustees but meetings with individuals and organisations involved in biological research and forestry in Britain. The objectives of the review are to audit the Trust's performance since it was established 14 years ago in terms of its objectives and to consider how best the Trust can carry out its role of bettering British forestry in the future. The review is expected to be completed by late 1997.

The Trust is increasingly being called on for assistance as the government's attitudes to research and its funding are changing and the diversity of applications is widening. In many cases the provision of Trust money is an essential catalyst without which many very important projects would not proceed. The Trustees have been very careful to fund projects important to forestry in Britain, based on sound science and well managed so that its limited financial resources are being used to best effect. This Annual Report shows the range of projects currently being supported in research and education, which I consider are exciting and important to the economy and well-being of the British population.

This year sees some changes in the organisation of the Annual Report to comply with a new Statement of Recommended Practice for Charities. The most obvious change is the inclusion of a Trustees' Report and some modification in the way the accounts are presented.

Sir David Landale KCVO

TRUSTEES' REPORT

The objectives of the Scottish Forestry Trust have been presented earlier in this report and are those contained in the Deed which established it as a Charitable Trust Fund and registered the Trust in the Books of the Lords of Council and Session in Edinburgh on 9th June 1983. There have been no material changes in the policies since its establishment.

The main reason for the Trust's existence is to support research, education and training in forestry and this is demonstrated in the sections following this summary report of the Trustees. The section of the Annual Report on "Current Projects" gives a brief account of six ongoing projects which cover a diverse range of research topics as well as an educational project in forestry targeted at schools. Three projects, or at least that part funded by the Trust, were completed this year and an account of these is contained in the second section of the "Projects Summary". It may be noted that one was a research project on seasoning of timber, the second entailed analyses of data to improve forecasts of supplies of British hardwoods, and the third grant aid is educational being a contribution to a large project concerned with establishing a sustainable native forest on the eastern shore of Loch Lomond for the benefit of present and future generations. These projects reflect the diversity and the grants provided, although very limited are invaluable, in helping to address and alleviate some of the concerns in forestry today. The third section of the "Projects Summary" provides a comprehensive list and brief summary statement of the main projects funded since the Trust was established and indicates the availability of fuller reports.

The Trustees during the year were:-

Sir D W N Landale KCVO
A F Bloomfield OBE
J R Finn
Capt. W F E Forbes (retired 31/12/96)
A N G Laing
Dr D C Malcolm OBE
W L Mason (appointed 1/7/96)

Dr J A Petty
Dr D A Rook (retired 30/6/96)
N D H Sanders
Sir M Strang Steel Bt (appointed 1/1/97)

Dr D A Rook retired as Trustee on 30th June to take up the appointment as Director of the Trust on the retirement of Mr John Eadie from that position. Capt. Forbes retired at the end of his 5 year period as a Trustee. Mr W L Mason and Sir Michael Strang Steel were appointed as Trustees to fill these vacancies.

The address of the Trust is

5 Dublin Street Lane South
Edinburgh, EH1 3PX.

The Board of Trustees has the sole power to make decisions for the Trust. Trustees are appointed for their experience, expertise and objectivity and cognisance is taken of maintaining a good balance of appropriate skills in the Board. A legal adviser regularly attends the full meetings, held three times per year, of the Trustees. The Director is responsible directly to the Chairman for the day to day organisation and management of the Trust's business. The Trustees are advised by a professional investment management company on its investment portfolio. The accounts are audited annually.

Trustees give freely of their time. In the case of the Chairman and members of the Projects and Research Committee this, for each person, is in excess of 10 days per year, whereas other Trustees will spend approximately five days on Trust business.

A statement of Trustees' responsibilities for financial statements is presented in the page preceding the full audited set of accounts in the Appendix. The auditor's observe that the financial statements give a true and fair account of the Trust's affairs at 31 March 1997 and of its surplus for that year. The financial statements prepared comply with the requirements of the Trust Deed and the Charities Accounts (Scotland) Regulations 1992.

The Accounts for the year show an income of £100,000 with direct charitable expenditure at £86,000. Management and administration costs were £48,000, which included £15,000 fees for professional and investment services. Net gains on investments amounted to £108,000 providing a surplus for the year of almost £75,000. The Trust has a single General Fund and the Trustees are empowered to use it for any purposes of the Trust or to accumulate revenue, although the rules require that the capital is not so depleted that the Trust cannot act properly as a charitable organisation. Net assets of the Trust at 31 March 1997 were £2,405,529. Commitments for grant aid for the following year are £59,000 with a projected budget of £99,344.

The Trustees have this year, for the first time, applied the provisions of the new Statement of Recommended Practice, Accounting by Charities issued in October 1995. This has resulted in the format of the financial statements which follow.

One of the most significant changes is that under the Statement of Recommended Practice, investment assets are required to be shown at market value while previous practice was to show them at cost. Full details of the effect of this are provided in note 1 to the financial statements.

The Trust derives the vast majority of its income from its sizeable investment portfolio. This portfolio is actively managed by the Investment Managers under a Discretionary Fund Management Agreement, with a view to ensuring a reasonably consistent level of income to the Trust to allow it to carry out its charitable activities.

Charitable expenditure increased principally due to the £35,000 donation to the Cashel Project referred to in the review of the Trust's activities.

Signed on behalf of the Board of Trustees.

D W N LANDALE

6 August 1997

Date

PROJECTS SUMMARY

CURRENT PROJECTS

1. An Investigation into the Stability of Irregular Forests Using a Wind Tunnel (*Northern Research Station, Forestry Commission and Oxford University*).

Increasing interest in more sophisticated silvicultural systems that produce irregular forests in this country has highlighted lack of knowledge of the stability of such forests compared to uniform forest canopies. Forest meteorologists are divided in their opinions as to the effect of canopy structure in generating and dissipating turbulence, i.e. the damaging gusts of wind. Field investigations to answer this question are impractical, expensive and it would be difficult to identify suitable and comparable experimental sites.

This study is using the alternative technique of a wind tunnel and scaled trees. This technique has previously provided excellent simulations of the effect of wind on uniform forests. Model forests of the following types have been constructed - uniform, single tree selection, group selection and strip. The uniform and group selection simulations have now been completed and measurements on the strip system are in progress. Preliminary results of the comparison of group and uniform forests indicate that the former may offer greater stability but these results require more detailed and complete analysis.

2. The Potential for Extending Forest Cover in Grampian (*Forestry Industry Council of Great Britain*).

This study is looking at the potential profitable transfer of land from farming to forestry in Grampian. The same system of analyses had been used at the national level in lowland England and Wales in a study commissioned by FICGB and partly funded by the Trust (see report #6 of Previously Completed Projects). The present study is focused on the regional level and is attempting to design an analytical framework which can indicate the location and extent of economic pressures for

new planting, and the types of forest likely to be created, taking due account of social and environmental factors. The Grampian Region was selected as an ideal test area as it contains one of the largest areas identified in an Indicative Forest Strategy as "preferred for forestry" in Britain.

Since any significant areas of land for new forests must come from agriculture, the analysis looks at the economics of land under farming compared to forestry based on classifications of land which reflect its capability for crops and trees. Farming and forestry are compared on the basis of gross margins, margins net of contractors' charges and both of these with and without grants. Account is also being taken of environmental and social reactions to afforestation.

The results and methodology of this study are eagerly awaited by farming and forestry interests and land use planners.

3. Ecological Site Classification for British Woodlands (*Northern Research Station, Forestry Commission and Institute of Ecology and Resource Management, University of Edinburgh*).

Development of an ecological site classification based on climate and soil quality will lead to a better matching of site quality to the ecological requirements of indigenous and introduced tree species providing better management of the ecosystem. This study is part of a comprehensive Forestry Commission project on using a site classification system in forest management. This project will develop quantitative definitions of classes of soil nutrient regimes for soils in woodlands and develop the use of ground flora species as indicators of soil nutrient regime.

The project is being accomplished by describing ground vegetation and sampling soil in plots throughout Britain. Choice of plots is dependent on there being good cover of ground vegetation, hence broadleaved tree species, pines and larches have been targeted. The total number of sites sampled over the two years has been 70. Soil analyses include pH, Ca, Mg, K, P, C, NO₃, and NH₄.

Preliminary analyses of the results are encouraging in indicating that it is possible to assess the soil nutrient regime as a combination of two indicator values, one representing pH and the other representing nitrogen, based on the vegetation composition alone.

4. The Effect of Nursing Mixtures on Stem Form, Crown Size and Wood Quality of Sitka Spruce (*Department of Forestry, University of Aberdeen*).

This study is examining some of the effects of larch and pine nurse species on the growth, stem form, branching habit and wood properties of Sitka spruce. Data and wood samples were collected from experimental sites at Strathly (planted 1965), Drumtochty (planted 1967) and Fetteresso (planted 1946) Forests. Spruce at Strathly and Drumtochty had been established in an intimate mix with larch and lodgepole pine and was compared with pure spruce that had been annually and periodically fertilised. Spruce from the Fetteresso site were in a row mixture with Scots pine on three types of ground preparation with a superimposed fertilisation study.

The main activity over the last growing season has been completion of Strathly and Drumtochty stem analyses which showed the historical patterns of growth and competition. Interesting results are emerging from these examinations indicating for example that larch was producing a superior growth rate to the annually-fertilised pure spruce stands by 30 years of age. The lodgepole pine nursed spruce had the lowest growth rate of all treatments. Analyses of the Fetteresso samples have to be completed.

5. The Tree Trunk (*Forestry Authority*).

The Tree Trunk provides a wide range of information related to community woodlands, multi-purpose forests, native woodlands and uses of timber. The target audiences are formal education groups and classes (Primary, Standard and Higher Grade pupils, teachers and parents) and environmental groups. The Trust has provided financial assistance; other members of the partnership are Central Scotland Countryside Trust, Forestry Authority and Scottish Natural Heritage.

The funding provided has been to undertake an interim evaluation of the Tree Trunk Project based on its use in four specified, and contrasting pilot areas, i.e. Borders, Central Scotland, Dumfries and Galloway, and Highlands. The report is expected in early summer. Indications are of a positive feedback and good suggestions are being received on improvements and possible further developments

6. Damping Off Pathogens in Natural Regeneration of Scots Pine (Department of Forestry, University of Aberdeen)

The objectives of this research are to understand the role of Damping-off pathogens, *Pythium*, *Phytophthora*, *Rhizoctonia solani*, on natural regeneration of Scots pine and to compare the susceptibility of different native Scots pine provenances. The funding sought from the Trust will be used for DNA fingerprinting to develop molecular probes for these Oomycete and Basidiomycete pathogens. These probes will allow the identification of the fungal material at the species and subspecies levels.

PROJECTS COMPLETED IN THE CURRENT YEAR

1. Fungal Spoilage of Kiln Dried Sitka Spruce at Scottish Sawmills (Department of Forestry, University of Aberdeen).

British sawmills started investing in kiln drying of softwoods in the late 1980s and this was encouraged with the implementation of BS4973 which required a moisture content of 20% or less which could not be reliably achieved in air drying. However kiln dried spruce timber frequently showed a disfiguring sapwood stain, caused by the pigmented sporulating structures of the fungus *Ophiostoma piceae*.

O. piceae development on kiln dried spruce was studied. Part of the study looked at the nutritional requirements of the fungus and tolerance to naturally occurring inhibitory compounds in the wood as well as the effect of kiln drying on these. The moisture status and wettability of the timber and humidity conditions within the stack were monitored.

The study has provided a better understanding of the conditions favouring development of the black stain fungus and has highlighted some improvements in procedures.

Kiln dried timber had a mean moisture content of 16% with a moisture gradient of approximately 15% between the dried surface and the batten centre. It is generally accepted that the minimum moisture content for decay fungi is 20% and for molds 24%. After 14 days storage the moisture gradient remained virtually unchanged and did not encourage fungal growth. Kiln dried battens should never be stored outside as close packed unwrapped packs. Removal of the kiln charge from the kiln as soon as possible after the end of the drying schedule is essential and the time that the kiln dried material remains outside the

kiln in stickered packs before repacking should be minimised to reduce infection of timber surfaces, particularly in windy weather.

Battens showing development of molding or staining should be dipped in a preparatory anti-mold and anti-bluestain solution such as Sinesto B or Celbrite to prevent further spoilage.

The results are contained in a PhD thesis at the University of Aberdeen and several papers for publication in refereed forestry journals are planned. A short report is available from the Trust.

2. Availability Forecast for the Principal British Hardwoods (*Timber Growers Association*).

Approximately 28% of the productive woodland areas in Britain comprises broadleaves and estimated to have provided 945,000m³ of hardwood timber in 1994. The aim of the predominantly desk-based project has been, for the first time, to prepare a 20-year availability forecast for the principal British hardwoods. The primary information source used was data of the Census of Woodland Trees which was carried out by the Forestry Commission between 1979 and 1982. A new woodland census is underway in Scotland but new data will not be available until later in 1997.

The total potential production of hardwood timber in Britain which will come from woodlands is estimated to be 1.8 million m³/annum, and 395,000m³/annum from non-woodland trees. It has been assumed that constraints on harvesting for conservation and landscape reasons will reduce potential production by 30%. The report summarises the hardwood resource by region and by species for woodland and non-woodland trees. It was decided that no meaningful and reliable production forecasts by 5 or 10 year periods could be produced for the next 20 years on the information available as broadleaves are subject to widely different management objectives. This report has emphasised the gap in information on the quality of the broadleaved resource and the roundwood produced. The report identifies areas of further research required if future forecasts of the potential production of hardwoods are to be improved.

3. Cashel - Forestry for a Thousand Years (*Royal Scottish Forestry Society Forest Trust*).

The Scottish Forestry Trust made a single payment of £35,000 to the Royal Scottish Forestry Society Forest Trust for its project to establish a native woodland on the eastern shore of Loch Lomond. The woodland will consist of Scots pine mixed with birch, oak, ash and other native broadleaves typical of the Caledonian Forests of some 10,000 years ago. This project has been largely funded through the Millennium Forest for Scotland Trust as well as being well received and assisted by many other organisations in Scotland. This is a very important forestry project which will attract considerable attention as access, recreation, education and conservation will be the benefits produced against a background of demonstration of the very best of forestry practices.

The Trust's funding has assisted in the initial year in fencing, preparing the ground and planting. This project has the potential of being a major flagship for forestry in the future and it was essential that this initial work was carried out meeting the highest professional standards.

PREVIOUSLY COMPLETED WORK

1. Tolerance of Scots Pine to Low Root Temperatures [1996]. *(Northern Research Station, Forestry Commission)*

In regenerating native pinewoods by planting, frost damage to roots can be a problem. Differences between provenances (four native, a current commercial seed identity and a Swedish seed origin) were observed. No differences in tolerance to waterlogging of native provenances were detected. There were however substantial differences observed in the basic morphological and physiological attributes between the origins. The main results are being published in forestry journals and a report is available from the Trust.

2. Socio-Economic Factors Influencing the Decision to Market Timber in the Private Sector [1996]. *(John Clegg & Co, and Firn, Crichton Roberts Ltd).*

This study was part of a multi-sponsored marketing project "A Strategic Review of Private Sector Roundwood Marketing in Britain". A sample database of 774 private sector woodland owners was established using questionnaires followed by personal interviews of 133. Main conclusion was that woodland owners could benefit from being more fully supported in technical and marketing skills. Improvements in marketing structures and services are likely to encourage greater quantities of timber onto the market. A report is available from the Trust.

3. Conservation of Scottish Forestry Soil [1996]. *(Institute of Freshwater Ecology, Natural Environment Research Council).*

Fourteen soil types grouped within the peat and mineral soil categories were identified as potentially susceptible to erosion if cultivation and drainage are required prior to afforestation. Organic content is the single most important factor controlling the degree of resistance to

mineral soil erosion. This study has helped in understanding the mechanics of erodibility of forest soils and in underpinning the theoretical basis of the Forests and Water Guidelines. A report is available from the Trust.

4. Habitat and Diet of Capercaillie in a Commercial Plantation in Central Scotland [1995]. *(Institute of Terrestrial Ecology, Natural Environment Research Council, Banchory).*

A study which examined the role of Sitka spruce in the diet of Capercaillie living in woodland where half of the woodland is Sitka spruce with larch. A report is available from the Trust.

5. Control of Variation in Density in Sitka Spruce [1995]. *(School of Agricultural and Forest Sciences, University of Wales, Bangor).*

A study aimed at understanding the underlying causes of variation in wood density with particular reference to the silvicultural control of critical strength properties. A report is available from the Trust.

6. The Future Location of Forestry in England and Wales, with Especial Attention to the Transfer of Lowland Agricultural Land [1995]. *(Forestry Industry Council of Great Britain).*

The work describes a system developed to identify, at a national level, the extent, location and type of land likely to be available for profitable transfer from farming to forestry. A report entitled "The Potential for Extending Forest Cover in the Lowlands of England and Wales" is available from FICGB.

7. An Investigation into the Influence of Site Quality on the Productivity of a Range of Major Tree Species [1994]. *(Macaulay Land Use Research Institute and Forestry Commission Research Division).*

A report which examines the productivity of Douglas fir, Japanese larch and Scots pine on better quality sites. Site/yield models allowing the prediction of General Yield Class are presented. A report is available from the Trust.

8. Net Carbon Dioxide Uptake of Scottish Forests [1994]. (*Institute of Ecology and Resource Management, University of Edinburgh*).

The study describes the development and testing of a system for the measurement of carbon dioxide exchange by forest stands. The development is a response to the need to predict how forestry's contribution to the removal of atmospheric carbon will change as the UK's forests mature. A report is available from the Trust.

9. Molecular Methods for the Detection and Identification of Heterobasidion annosum [1993]. (*University of Abertay, Dundee*).

A study of immunology methods in live trees and harvested wood. A report summarising the progress made is available from the Trust.

10. Private Forestry Policy in Western Europe [1993]. (*Author: A J Grayson*).

The implementation of policy and the role of financial incentives in Britain, western Europe and some other countries including Australia and Russia is discussed against the background of descriptions of the historical and social context of forestry, its legislative, policy and administrative framework, and the taxation and grants regimes employed in the individual countries.

Copies of the book are available from the publisher, CAB International, Wallingford, Oxon, OX10 8DE.

11. The Development of a Transformation from Uniform Plantations to an Irregularly Structured Forest [1992]. (*Institute of Ecology and Resource Management, University of Edinburgh*).

An enumeration survey 40 years into a 60-year transformation from uniform plantations to an all-aged forest of mixed species on an upland site at Glentress in the Tweed Valley. A report is available.

12. The Mechanism of Increased Nitrogen Uptake by Spruce in Mixed Species Stands [1992]. (*Department of Plant and Soil Science, University of Aberdeen*).

A study of the mechanisms by which the "extra" nitrogen which results in improved growth of spruce when grown in mixture with Scots pine, lodgepole pine or larch on poor peats and heathlands becomes available. A report is available.

13. "Shake" in Oak [1992]. (*Oxford Forestry Institute, Oxford University*).

A study of the defect, including the relationships of oak leaf flushing and autumn shedding to early wood vessel size and a predisposition to "shake", the role of mechanical stresses in the condition, and an evaluation of its economic consequences. A report is available.

14. Survey of Squirrels in Britain [1992]. (*Timber Growers United Kingdom*).

The results of a questionnaire distributed among private woodland owners to determine the current status of both the red and grey squirrels, grey squirrel control, and grey squirrel damage. Designed to be complementary to the Forestry Commission's Annual Squirrel Survey of its forests, and to be combined with it to obtain a more comprehensive assessment than has hitherto been possible. A report is available from TGUK, now TGA.

15. The Commercial Potential of Birch in Scotland [1991]. (*The Forestry Industry Council of Great Britain*).

Funded in association with the Countryside Commission for Scotland, the Forestry Commission and Highlands and Islands Enterprise.

An investigation, made by commissioning a collection of essays, into the potential economic, silvicultural and ecological benefits of native birch in Scotland. A symposium based on the material in the essays was held in May 1991.

Copies of the collection of essays are available, price £5, from the Trust and from the Forestry Industry Council of Great Britain.

16. The Ecology of the Great Spruce Bark Beetle (*Dendroctonus micans*) and its Predator, *Rhizophagus grandis* [1991]. (*Forestry Commission Research Division*).

This work contributed to a wider Forestry Commission programme on the development of a monitoring system for *R. grandis* and on the nature of tree resistance to attack by *D. micans*. A report is available.

17. Development of a Computer Programme for Forecasting Conifer Wood Production in the United Kingdom [1991]. (*Forestry Industry Council of Great Britain*)

A study which produced a computer programme able to assess the impact of different planting rates on future wood supplies, capable of accommodating differences in species growth rates, treatments and rotation lengths, and of differentiating wood production into a range of top end diameter size classes.

18. The Forestry Industry and the Greenhouse Effect [1991]. (*Department of Economics, University College London*).

A study of the economic aspects of the role of forestry in addressing the greenhouse effect, which links policies aimed at reducing carbon accumulations with those concerned to reduce carbon emissions, and which develops the principles on which carbon taxes and credits might be based. Some preliminary estimates are made of both taxes and credits. A published report is available.

19. Designated Areas in Scotland [1991]

A publication which includes descriptive accounts of the main designated areas in Scotland together with maps of their locations at a scale of 1:750,000.

Published by the Scottish Forestry Trust from material prepared by the Institute of Terrestrial Ecology. Price of publication £7.95 obtainable from the Trust.

20. Yield Class and Windthrow Hazard Characteristics of Forestry in the Grampian Region [1990]. (*Macaulay Land Use Research Institute*).

A study of the use of predictive models developed at M.L.U.R.I. in the production of information on the forestry potential of the region, and presented in the form of maps of yield class and windthrow hazard. A report discusses the methods and provides a commentary on the maps.

21. The Influence of Wide Spacing of Trees on the Interception of Radiation and the Growth of Trees and Pasture [1990]. (*Department of Forestry and Natural Resources, University of Edinburgh*).

A study of light interception by the tree canopy and by pasture grasses, and its relationship to the growth of both components when combined in agroforestry (silvopastoral) systems. A report summarising the progress made is available from the Trust.

22. The Impact of Forestry on Output and Employment in the United Kingdom and its Member Countries [1989]. (*Fraser of Allander Institute, with additional survey material compiled by the Department of Forestry and Natural Resources, University of Edinburgh*).

Funded in association with the Forestry Commission and Forestry Industry Council of Great Britain. The first comprehensive estimate of the impact of forestry on output and employment on the aggregate UK economy and those of its member countries. A publication is available.

23. Production Forecasting for Private Sector Scottish Forestry [1988]. (*Department of Forestry, University of Aberdeen*).

A survey of the private sector growing stock in Scotland, for the purpose of exploring the apparent discrepancies between the national production forecast produced by the Forestry Commission and estimated actual production by the private sector. A report is available.

24. Current Knowledge and Perceptions of Forestry [1988]. (*Valin Pollen Ltd and Consensus Research*).

A study which identifies forestry's key audiences, their current knowledge and perceptions of the forestry industry, outlines the way in

which the communications chain operates to influence opinion and makes recommendations about a more effective communications strategy. A report is available.

25. The Economic Effects of the "Guidelines for the Management of Broad-leaved Woodland" [1987]. (*Timber Growers United Kingdom*).

A study of the economic impact of the Forestry Commission's Broadleaved Policy, introduced in 1985 based on an analysis of the changes in profitability of five major broadleaved species, based on data from sample estates throughout Britain, brought about by the guidelines of the policy. A report is available.

26. Stirling Forestry Employment Study [1987]. (*Firn, Crichton Roberts Ltd*).

Study funded jointly with Stirling District Council and the Scottish Development Agency which analysed employment in the forestry industry in the Stirling District. A report is available.

THE SCOTTISH FORESTRY TRUST

STATEMENT OF TRUSTEES' RESPONSIBILITIES

Charity law requires the Trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the Scottish Forestry Trust and of its income and expenditure for that period. In preparing those financial statements, the Trustees are required to:

- select suitable accounting policies and then apply them consistently.
- make judgements and estimates that are reasonable and prudent.
- prepare the financial statements on a going concern basis unless it is inappropriate to presume that the Trust will continue in existence.

The Trustees are responsible for keeping proper accounting records, which disclose with reasonable accuracy at any time the financial position of the Trust and to enable them to ensure that the financial statements comply with charities legislation. They are also responsible for safeguarding the assets of the Trust and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

THE SCOTTISH FORESTRY TRUST

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR TO 31 MARCH 1997

	Notes	1997 £	1996 £
INCOME			
Investment income and recoverable			
tax credits		90,124	93,142
Bank interest gross		9,022	10,111
Donations		1,105	1,181
		<u>100,251</u>	<u>104,434</u>
DIRECT CHARITABLE EXPENDITURE			
Grants and other charitable expenditure	2	86,015	55,398
MANAGEMENT AND ADMINISTRATION EXPENDITURE			
Employment costs	3	16,531	16,530
Office costs		8,632	7,270
Trustees' expenses		1,576	165
Professional fees	4	14,792	15,259
Finance costs		1,448	11
Annual Report costs		4,682	5,147
Depreciation		348	—
		<u>48,009</u>	<u>44,382</u>
NET SURPLUS/(DEFICIT)		(33,773)	4,654
OTHER RECOGNISED GAINS AND LOSSES			
Net realised gains on investments		36,743	60,752
Net unrealised gains on investments		71,864	306,326
		<u>74,834</u>	<u>371,732</u>

The Notes on pages 27 to 30 form part of these Accounts.

THE SCOTTISH FORESTRY TRUST

BALANCE SHEET AS AT 31 MARCH 1997

	Notes	1997 £	1996 £
FIXED ASSETS			
Tangible fixed assets	5	1,388	—
Investments	6	2,370,560	2,304,094
		<u>2,371,948</u>	<u>2,304,094</u>
CURRENT ASSETS			
Debtors	7	5,065	3,266
Cash at Bank		38,247	30,222
		<u>43,312</u>	<u>33,488</u>
LIABILITIES: Amounts falling due within one year	8	9,731	6,887
		33,581	26,601
TOTAL ASSETS LESS CURRENT LIABILITIES		2,405,529	2,330,695
LIABILITIES: Amounts falling due after more than one year		—	—
NET ASSETS		<u>2,405,529</u>	<u>2,330,695</u>
FUNDS			
UNRESTRICTED	9	2,405,529	2,330,695

Approved by the Trustees on 6th August, 1997
and signed on their behalf by

D W N LANDALE

.....Chairman

D C MALCOLM

.....Trustee

The Notes on pages 27 to 30 form part of these Accounts.

THE SCOTTISH FORESTRY TRUST
STATEMENT OF FINANCIAL ACTIVITIES
FOR THE YEAR TO 31 MARCH 1997

	1997	1996
	£	£
INCOMING RESOURCES		
Donations	1,105	1,181
Investment income	99,146	103,253
TOTAL INCOMING RESOURCES	<u>100,251</u>	<u>104,434</u>
RESOURCES EXPENDED		
Direct charitable expenditure	86,015	55,398
Management and administration	48,009	44,382
TOTAL RESOURCES EXPENDED	<u>134,024</u>	<u>99,780</u>
NET INCOMING/(OUTGOING) RESOURCES BEFORE TRANSFERS	(33,773)	4,654
Transfer between funds	—	—
NET INCOMING/(OUTGOING) RESOURCES FOR THE YEAR	(33,773)	4,654
OTHER RECOGNISED GAINS AND LOSSES ON INVESTMENTS		
Realised gains/(losses)	36,743	60,752
Unrealised gains/(losses)	71,864	306,326
NET MOVEMENT IN FUNDS	74,834	371,732
Balances brought forward at 31 March 1996	2,330,695	1,958,963
Balances carried forward at 31 March 1997	<u>2,405,529</u>	<u>2,330,695</u>

The Notes on pages 27 to 30 form part of these Accounts.

THE SCOTTISH FORESTRY TRUST
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 1997

1. ACCOUNTING POLICIES

The financial statements have been prepared in accordance with applicable accounting standards and the Statement of Recommended Practice, Accounting by Charities. This represents a change from previous reporting practice and comparative figures have been restated as necessary.

Following the introduction of the Statement of Recommended Practice, Accounting by Charities issued in October 1995, investment assets are required to be shown at market value while previous practice was to show them at cost. In addition to realised gains and losses on the disposal of investments being recognised in the Income and Expenditure Account, unrealised gains and losses on the annual revaluation of investments are also included in the Income and Expenditure Account and the Statement of Financial Activities.

As a result of these changes the total funds brought forward at 1 April 1995 previously reported at £1,562,358 have been restated to £1,958,963. The surplus for the year ended 31 March 1996 previously reported at £65,406 is restated to £371,732. These adjustments result in an increase in the funds at 31 March 1996 from £1,627,764 to £2,330,695.

(a) BASIS OF ACCOUNTING

The financial statements have been prepared under the historical cost convention as modified by the revaluation of investment assets.

(b) DEPRECIATION

Depreciation is provided on the cost or valuation of tangible fixed assets over their estimated useful lives to the organisation. The annual depreciation rates and methods are as follows.

Office equipment: 20% pa straight line

(c) TRUST FUNDS

The Scottish Forestry Trust Funds are held to promote education, training and research in forestry and silviculture.

The Trust has a single General Fund, which is split between capital and revenue. Under the Trust Deed the Trustees are empowered to use both capital and revenue for

any of the purposes of the Trust and to accumulate revenue. This is modified by the Trust rules to require the Trustees not to so deplete capital that the Trust cannot act properly as a charitable organisation.

(d) INVESTMENT INCOME

Investment income is the income received during the year together with the related recoverable tax credits thereon.

	1997	1996
	£	£
2. GRANTS AND OTHER CHARITABLE EXPENDITURE		
Fungal Spoilage of Kiln Dried Soft Wood	5,845	11,436
Tolerance of Scots Pine Populations to		
Low Root Temperatures	—	2,815
Stability of Irregular Forest	12,890	7,110
The Potential of Extending Forest		
Cover in Grampian	—	7,000
Conservation of Scottish Forestry Soils	—	4,000
Nursing Mixtures on Stem Form, Crown Size		
and Wood Quality of Sitka Spruce	9,650	4,650
A Strategic Review of Private Sector		
Roundwood Marketing	—	5,787
Ecological Site Classification for British Woodlands	12,723	6,700
Capercaillie in Commercial Plantations	—	5,900
The Tree Trunk	3,350	—
Cashel: Forest for a Thousand Years	35,000	—
Availability Forecast of British Hardwoods	1,557	—
Damping off Pathogens of Scots Pine	5,000	—
	<u>86,015</u>	<u>55,398</u>

3. EMPLOYMENT COSTS

Directors' Salaries	15,000	15,000
Social Security	1,531	1,530
	<u>16,531</u>	<u>16,530</u>

The average number of employees during 1996 and 1997 was one. The sole employee is involved in administration of the Trust.

4. PROFESSIONAL FEES

Auditors remuneration – audit services	800	800
Auditors remuneration – other services	1,000	1,000
Legal fees	588	696
Investment management fees	12,324	12,683
	<u>14,792</u>	<u>15,259</u>

5. TANGIBLE FIXED ASSETS

	Office Equipment	Total
	£	£
COST		
Additions	1,736	1,736
Disposals	—	—
At 31 March 1997	<u>1,736</u>	<u>1,736</u>

AGGREGATE DEPRECIATION

Charge for the year	348	348
At 31 March 1997	<u>348</u>	<u>348</u>

NET BOOK VALUE AT 31 MARCH 1997

	<u>1,388</u>	<u>1,388</u>
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6. INVESTMENTS

(a) QUOTED INVESTMENTS

Market Value at 1 April 1996	2,190,831	1,793,924
Additions	118,329	392,128
Disposals	(207,726)	(301,547)
Net unrealised and investment gains/(losses)	<u>71,864</u>	<u>306,326</u>
Market value at 31 March 1997	<u>2,173,298</u>	<u>2,190,831</u>

Historical cost as 31 March 1997

	<u>1,398,503</u>	<u>1,487,900</u>
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(b) CASH BALANCES HELD AS PART OF THE INVESTMENT PORTFOLIO Held by Stewart Ivory & Co

	<u>197,262</u>	<u>113,263</u>
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7. DEBTORS

Taxation recoverable	3,525	2,220
Prepayments	310	—
Accrued income	1,230	1,046
	<u>5,065</u>	<u>3,266</u>

8. LIABILITIES: Amounts falling due within one year

Other creditors	1,378	545
Accruals	8,353	6,342
	<u>9,731</u>	<u>6,887</u>

9. UNRESTRICTED FUNDS

	Reserves		Total
	Revenue	Capital	
	£	£	£
Balance at 1 April 1996	116,086	2,214,609	2,330,695
Net surplus/(deficit)	(33,773)	—	(33,773)
Net realised gains on investments	36,743	—	36,743
Net unrealised gains on investments	—	71,864	71,864
Balance at 31 March 1997	<u>119,056</u>	<u>2,286,473</u>	<u>2,405,529</u>

10. CONTINGENT LIABILITIES

The Trust has made commitments to pay grants totalling £59,000 over the next 12 months conditional on the research continuing and satisfactory reports being received by the Trustees.

THE SCOTTISH FORESTRY TRUST AUDITORS' REPORT TO THE TRUSTEES OF THE SCOTTISH FORESTRY TRUST

We have audited the financial statements on pages 24 to 30 which have been prepared under the accounting policies set out on pages 27 and 28.

Respective Responsibilities of the Trustees and Auditors

The Trustees are responsible for the preparation of the financial statements. It is our responsibility to form an independent opinion, based on our audit, on those statements, and to report our opinion to you. It is also our responsibility to state the fact in our report if we are of the opinion that the Trust has not maintained a satisfactory system of control over its transactions.

Basis of Opinion

We conducted our audit in accordance with auditing standards, issued by the Auditing Practices Board. An audit includes examination on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the Trustees in the preparation of the financial statements, and of whether accounting policies are appropriate to the Trust's circumstances, consistently applied, and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or irregularity or error. In forming our opinion, we also evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion

In our opinion the financial statements give a true and fair view of the state of the Trust's affairs at 31 March 1997 and of its surplus for the year then ended and comply with the requirements of the Trust Deed under which the Trust was formed and the Charities Accounts (Scotland) Regulations 1992.

Brown, Campbell & Co.
Chartered Accountants and
Registered Auditor
16 Great Stuart Street
Edinburgh EH3 7TN

Date:- 6 August 1997

THE SCOTTISH FORESTRY TRUST NEEDS YOUR HELP

Forestry, as a science-based industry must continue to seek new opportunities, resolve emerging problems, and find new ways of tackling longstanding ones. Also, in response to demands and pressures from within and outwith the industry, the wider information needs of forestry have continued to grow.

As a result the Trust is receiving an ever-increasing number of good, relevant applications far beyond the capability of its current resources to fund.

The Trustees believe that it is very much in the interest of a healthy and vital private sector that it should benefit from a financially strengthened Scottish Forestry Trust. **The Trust needs your help** in the form of donations of any size. Since the Trust is a charity, Covenants from donors enable tax to be reclaimed by the Trust, thereby increasing the value of any gifts.

DEED OF COVENANT

(listed companies and other corporate bodies)

This Deed of Covenant is made theday of
..... 19..... between

(hereinafter called "the Donor Company") of the one part and the Scottish Forestry Trust (hereinafter called "the Trust") of the other part WITNESSETH that the Donor Company hereby covenants with the Trust that it will during the term of four years from the

.....day of19 pay
annually to the Trust on the day of
.....in each year for the benefit of the work of the Trust
such a sum as will after deduction of Income Tax at the rate in force
for the time being, leave in the hands of the Trust, the net sum of

..... (.....)

Please return to

The Scottish Forestry Trust
5 Dublin Street Lane South
Edinburgh EH1 3PX

For and on behalf of.....

(Director).....

(Director or Company Secretary).....

DEED OF COVENANT

(Individuals)

I,
of
hereby bind myself to pay annually to the Scottish Forestry Trust,
5 Dublin Street Lane South, Edinburgh, for the benefit of the general
work of the Trust for a period of four years from the
day of 19 or during my lifetime
whichever shall be the shorter such a sum as will after deduction of
Income Tax at the rate for the time being in force, amount to the sum
of per annum, beginning the first
payment on the 19 in
witness thereof those present are subscribed by me at
on the 19.

Signature

Please return to

**The Scottish Forestry Trust,
5 Dublin Street Lane South, Edinburgh EH1 3PX**

Witness

Address

.....

Occupation

GIFT AID

Gift Aid is a Government tax concession which enables single gifts to be made to charitable organisations like the Scottish Forestry Trust by U.K. residents.

The gift must be accompanied by a certificate obtainable from the Scottish Forestry Trust,
5 Dublin Street Lane South,
Edinburgh EH1 3PX.