

FORESTRY COMMISSION

THIRTY-FIRST  
ANNUAL REPORT OF THE  
FORESTRY COMMISSIONERS  
FOR THE YEAR ENDING  
SEPTEMBER 30<sup>TH</sup>  
1950

*Presented pursuant to Section 7 (3) of the Forestry  
Act, 1945 (8 & 9 Geo. VI Ch. 35)*

---

*Ordered by The House of Commons to be Printed  
27th June 1951*

---



LONDON  
HIS MAJESTY'S STATIONERY OFFICE

PRICE 2s. 6d. NET

FORESTRY COMMISSION,  
25, SAVILE ROW,  
LONDON, W.1.

*8th May, 1951.*

*To:*

THE MINISTER OF AGRICULTURE AND FISHERIES.  
THE SECRETARY OF STATE FOR SCOTLAND.

Gentlemen,

In pursuance of Section 7 (3) of the Forestry Act, 1945, I have the honour to transmit the 31st Annual Report of the Forestry Commissioners covering the Forest Year ended September 30th, 1950.

I am,

Gentlemen,

Your obedient Servant,

(Sd.) ROBINSON,  
*Chairman.*

# CONTENTS

	Page
<b>FOREST POLICY</b> ... ..	5
Private Forestry ... ..	5
The Dedication Scheme ... ..	5
Planting Grants ... ..	5
Co-operative Associations ... ..	6
Timber Production ... ..	7
Select Committee on Estimates ... ..	8
Restocking of Devastated Woodland ... ..	9
Acquisitions of Special Interest ... ..	10
The New Forest, Hampshire ... ..	10
Joint Informal Committees of the Forestry Commission and Councils for the Preservation of Rural England and Wales ... ..	11
European Forestry and Forest Products Commission ... ..	11
<b>ORGANISATION</b> ... ..	12
The Forestry Commissioners ... ..	12
The National Committees for England, Scotland and Wales ... ..	12
The Regional Advisory Committees ... ..	13
<b>SUMMARY OF THE YEAR'S WORK</b> ... ..	14
<b>THE FORESTRY FUND</b> ... ..	17
<b>PROGRESS OF WORK</b> ... ..	18
Acquisition and Utilisation of Land ... ..	18
Forest Units ... ..	19
Land Acquired to date by Lease or Purchase ... ..	20
Acquisition of Land during the Year ... ..	21
Progress of Acquisition of Plantable Land ... ..	21
Cultural Operations ... ..	22
Plantations ... ..	22
Expenditure ... ..	23
Planting Progress to date ... ..	23
Plants used for Planting and Beating Up ... ..	24
Nurseries ... ..	24
Area ... ..	25
Stocks of Transplants and Seedlings ... ..	25
Seed Sown ... ..	26
Sources of Seed ... ..	27
Home Collected Seed ... ..	28
Imported Seed ... ..	29
Sales of Seed ... ..	29
Sales of Nursery Stock ... ..	30
Forest Protection ... ..	31
Fire Protection ... ..	31
Protection against Rabbits ... ..	32
Preparation and Sale of Produce ... ..	32
Thinning and Clear Felling ... ..	32
Sales of Forest Produce ... ..	32
Licensing of Timber Felling ... ..	33
Roads ... ..	33
Holdings and Estate Management ... ..	34
Forest Workers Holdings ... ..	34
New Houses ... ..	34
Stores ... ..	35
Miscellaneous Expenditure ... ..	35
Technical Supervision ... ..	35
Labour Employed in State Forests ... ..	35
Private Forestry ... ..	35
Planting on Private Estates ... ..	36
The Dedication Scheme ... ..	37
Thinning Grants ... ..	37

Education ... ..	Page
Forester Training Schools and Short Courses ...	38
Forest Workers Training Scheme ... ..	38
Northerwood House ... ..	38
Forestry Exhibits ... ..	39
Grants to Educational Institutions ... ..	39
Research and Experiment ... ..	39
Silviculture ... ..	40
Studies of Growth and Yield ... ..	41
Forest Genetics ... ..	41
Forest Ecology ... ..	42
Forest Pathology ... ..	42
Forest Entomology ... ..	42
Machinery Research ... ..	43
Advisory Committee on Forest Research ...	43
Utilisation ... ..	43
Grants to Universities and Other Institutions ...	43
Publications ... ..	44
Publicity and Public Relations ... ..	44
National Forest Parks ... ..	45
Staff ... ..	46

#### APPENDICES

1 Payments by Heads of Account, and Receipts ... ..	Page
2 Expenditure and Income ... ..	47
3 Forestry Operations ... ..	48
4 Cultural Operations... ..	49
5 Forest Workers Holdings ... ..	50
6 Education ... ..	51
7 Research and Experiment ... ..	52
8 Special Services ... ..	53
9 Plantations made in the Year ended 30th September, 1950— Summary by Conservancies ... ..	54
10 Summary of Species used for Planting and Beating Up ...	56
11 Summary Area Statement of Land Use—by Conservancies ...	57
Area Statements of Land Use—by Forests:—	
12 England ... ..	57
13 Scotland ... ..	60
14 Wales ... ..	63
15 Outline Maps showing Distribution of Forests:—	
England ... ..	65
Scotland... ..	70
Wales ... ..	74

# THIRTY-FIRST ANNUAL REPORT OF THE FORESTRY COMMISSIONERS

FOR THE YEAR ENDING

SEPTEMBER 30th 1950

## FOREST POLICY

### PRIVATE FORESTRY

**The Dedication Scheme.**—During the year under report agreement was reached with the United Kingdom Forestry Committee as to certain modifications in the Dedication Scheme designed to make this more acceptable to the woodland owner. Among other changes the owner may now obtain release from dedication of the whole or part of his woodlands provided the Commissioners are satisfied that for reasons beyond the owner's control he is unable to continue to manage his woodlands in accordance with his undertakings and provided the Commissioners do not decide within twelve months to take over management. An owner is further entitled to the release of any area which the Commissioners consider unsuitable for continued development and management for forestry purposes.

Provision has also been made for the appointment of an independent Investigating Committee to advise the Commissioners in any cases of dispute relating to the rules of good forestry which are not subject to arbitration.

Planting grants under Basis II have been increased from £10 to £12 per acre and the maintenance grants from 3s. 4d. to 4s. per acre, and the obligation to keep accounts in a prescribed form is now restricted to owners dedicating under Basis I, which provides for repayment to the owner of 25 per cent. of his approved net annual expenditure on his dedicated woodlands.

The Dedication Deeds were amended to incorporate the above changes and a revised edition of the Commissioners' explanatory Booklet No. 2\* was published early in 1950. The abolition of the control of maximum timber prices having facilitated agreement with the woodland owners, the United Kingdom Forestry Committee, after a meeting with the Commissioners on 19th January, 1950, advised its constituent bodies to recommend the Dedication Scheme to their respective members—a course which they had not previously felt able to take. The advice was accepted and the Commissioners are glad to know that the Dedication Scheme has now the full support of all the associations representing the private woodland owners. The response is already apparent in the increased number of estates engaged on preparing plans for the effective management of their woodlands, the number having risen from 248 to 374 and the corresponding area of woodland from 230,000 to 272,000 acres during the year.

**Planting Grants.**—From the year 1945–46 onwards grants have been available under the so-called Interim Planting Grants Scheme. This was in effect a continuation of the planting grants available to owners before the introduction of the Dedication Scheme, but payments were subject to the condition that

\* Forestry Commission Booklet No. 2. The Dedication of Woodlands. Second Edition 1950. H.M. Stationery Office. 1s. 6d. net.

the grants must be repaid if the planting was carried out in woodlands which are suitable for dedication and the owner declines to dedicate them. The Commissioners consider that owners have now had sufficient time to make up their minds about the Dedication Scheme and it has been decided to make no further Interim Planting Grants after the end of the year under report. After consultation with the United Kingdom Forestry Committee the Commissioners have agreed however, that owners intending to dedicate by 30th June, 1953, may obtain grants for planting during the next two years as soon as the Plan of Operations required under the dedication deed has been approved, provided such planting has been approved by the Conservator.

Apart from the Dedication Scheme, grants, at the present rate of £12 per acre, are also available for planting in Small Woods which, for the purpose of these grants, are defined as follows:—

A. On any estate (irrespective of the total woodland area):

- (a) Detached woods less than 5 acres in area.
- (b) Narrow strips and belts of woodland, e.g., those averaging 3 chains or less in width, which are detached or are only joined to larger blocks at one end.
- (c) Detached woods of bad access, not exceeding 15 acres if of good shape, but up to 30 acres if the shape is bad.

B. On an estate with a total woodland area of less than 150 acres:

All woods irrespective of size, shape and accessibility, provided that there is no individual accessible wood of good shape exceeding 35 acres in extent.

The grants cover planting, direct sowing, and natural regeneration, and are payable in two instalments.

During the year the Commissioners have also introduced special grants for the planting of poplar in pure blocks or lines at wide spacing. The merits of poplar are not as well appreciated as they should be; on suitable sites it will grow to a large size within 25 or 30 years and produce a valuable timber which is much in demand. Though conditions are seldom suitable for planting poplars in large blocks there are many spinneys and stream sides in the lowlands which could be enriched by the systematic planting of poplar in small blocks or lines. Experimental investigations on poplars have been carried out by the Commissioners over many years, and supplies of cuttings of recommended fast-growing varieties have been made available to the nursery trade and to private owners since 1948. The grants payable are at the rate of £8 per acre, or at 2s. per tree when set out in lines or rows.

The Commissioners hope that widespread use will be made of these grants, especially by the farming community.

**Co-operative Associations.**—In their 29th Annual Report the Commissioners expressed the view that there was considerable scope for the development of co-operative schemes in private forestry, and referred to the Society operating in Scotland known as the Co-operative Forestry Society (Scotland) Ltd. The Commissioners had agreed to provide a grant not exceeding £2,000 spread over three years, to meet any deficit arising out of the work of the Society in its formative years.

The Commissioners are glad to record that this Society is making satisfactory progress and that it has not required to ask the Commissioners for any financial assistance. On a considerable number of estates in Scotland the Society provides the skilled supervision required by the Dedication Scheme. It also plans, contracts and carries out work in connection with the purchase and sale of timber and plants. A subsidiary society has been formed in Argyll which will be affiliated to the main society.

Though the co-operative movement in England and Wales is not so highly developed as in Scotland, there is some progress to report. Three main co-operative bodies are operating in England; Northern Forest Products Ltd. covering the five northern counties; South Western Woodlands Association Ltd. working in the south-west of England; and Western Woodland Owners Ltd. working mainly in the counties of Hereford, Worcester and Gloucester. The Commissioners are providing assistance to the first two of the above bodies in the form of a grant to each of £600 and a guarantee of a similar amount against loss on the year's working.

Western Woodland Owners Ltd., which was reorganised in August, 1950, is not in receipt of financial assistance from the Commissioners.

In Wales the only co-operative forestry society at present is the Dovey Woodlands (Coedllanau Bro Ddyfi) Ltd., which operates in the immediate vicinity of Machynlleth. In May, 1950, however, the Welsh Agricultural Organisation Society undertook to organise forestry co-operative societies throughout Wales and Monmouth, and the Commissioners have agreed to make a grant to the Society of up to £1,000 per annum for three years to assist this work.

### TIMBER PRODUCTION

In the year under review a number of important changes have taken place in connection with our national timber supplies. On the 1st January, 1950, control over felling and the sale of growing trees for felling, previously the responsibility of the Board of Trade, was assigned to the Minister of Agriculture and Fisheries and the Secretary of State for Scotland, and on the 3rd January the Forestry Commissioners became the licensing authority for Great Britain. This new task has necessitated some addition to the Commissioners' staff of Private Woodland Officers, but the take-over has proceeded smoothly and few serious difficulties have been encountered. As was stated in their Report for the previous year, in issuing licences for clear felling the Commissioners have regard not only to the total volume but also to the age, type and condition of the stand. So far as practicable, fellings are confined to overmature or poor quality stands, conserving all thriving, immature plantations.

Besides administering the licensing system, the Commissioners had also to regulate fellings during 1950 in accordance with the quota which had been previously fixed by the Board of Trade after consultation with the Home Grown Timber Advisory Committee. This Committee, of which the Timber Controller was Chairman, comprised representatives of the Board of Trade, Forestry Commission, National Coal Board, United Kingdom Forestry Committee and the Timber Trade Associations. The Commissioners have taken over this Committee and appointed Lord Radnor, a Forestry Commissioner, as Chairman.

When considering the level at which the felling quota should be fixed for the first nine months of 1951, i.e., until the end of that forest year, the Commissioners had provisional data from the recently completed Census of Woodlands. These data, though clearly indicating the scantiness of the stocks of timber remaining, could not be fully analysed, and as an interim figure a quota was proposed amounting to 22·1 million cubic feet of timber of over 6 inches quarter girth at breast height; of this total 16·8 million cubic feet are broad-leaved and 5·3 million cubic feet conifers. These figures were placed before the Home Grown Advisory Committee at a meeting held on 21st September, 1950.

Another important step was the removal by the Board of Trade on 1st December, 1949, of maximum price control on all standing timber. This

action had obvious repercussions on the price of pitprops, the main purchaser of which was the National Coal Board, and at a meeting of the Forestry Commissioners and the United Kingdom Forestry Committee held on the 19th January it was agreed that the Commissioners should join with the private growers and the home timber trade to constitute a Committee to negotiate with the National Coal Board with a view to fixing prices for round mining timber for the whole country. The Committee was set up with the Director General of the Forestry Commission as Chairman, and with representatives of the Forestry Commission, the United Kingdom Forestry Committee, and the home timber trade in England and Wales and Scotland. The actual negotiations were entrusted to a Sub-Committee which had three meetings with representatives of the National Coal Board but failed to reach a satisfactory agreement. In the meanwhile the Commissioners have continued to enter into contracts with the National Coal Board for the supply of pitprops to various coalfields.

Since maximum price control was removed there has been a general tendency for prices of standing timber to rise, especially of the larger sizes. Fluctuations, however, have been wide, and prices showed no signs of becoming stabilised by the end of the year under report.

As was stated in their previous Annual Report, the Commissioners decided in December, 1949, to appoint an advisory committee on the utilisation of home grown timber, with the following terms of reference:—"To advise the Commissioners on measures designed to promote the utilisation and sale of produce from British woodlands." The Committee includes representatives of the following bodies:—Forestry Commission, Board of Trade, Forest Products Research Laboratory, Rural Industries Bureau, United Kingdom Forestry Committee, Timber Development Association, Home Timber Merchants' Association of England and Wales and Home Timber Merchants' Association of Scotland. The Committee held two meetings during the year and steps were taken to recruit the additional staff which the work of the Committee will necessitate.

## SELECT COMMITTEE ON ESTIMATES

The Select Committee on Estimates of the House of Commons examined the estimates and expenditure of the Forestry Commission in the course of the year 1949. Their report, which was dated 13th December, 1949, was published as the 16th Report from the Select Committee on Estimates, Session 1948-1949. The Commissioners' reply was published as a White Paper dated 25th July, 1950 (6th Report from the Select Committee on Estimates, Session 1950). The Committee's principal recommendations were concerned with marketing of thinnings from the Commission's forests, a proposed change in the basis of its accounting system, and expenditure on roads and houses.

As regards thinnings, the Committee recommended that in general timber merchants should be encouraged to do felling, and extraction and conversion of material from the Commission's forests. This was already the policy of the Department.

The Committee recommended that an accounting system on commercial lines should be introduced in each Conservancy and that the accounts of the Forestry Commission as a whole should be built up from these accounts. Following this recommendation the Commissioners have made arrangements to experiment with a new accounting procedure designed to provide a better basis for management control within the limitations imposed upon them by the requirements of Parliamentary accounting.



The Committee recommended that road operations should be limited at present to those that will be immediately useful, either in facilitating the extraction of profitable thinnings or saving workers' travelling time or providing ready access for fire-fighting. This was in accordance with the policy which the Department had for some time been pursuing.

The Committee was concerned at the high cost of houses built for the Forestry Commission, and recommended that as long as limitations on the price of houses were necessary they should be applied as much to the Forestry Commission as to local authorities and private individuals. In their reply, the Commissioners pointed out that the cost of many of their houses must necessarily be high because the sites are isolated and difficult, and it was often impossible to obtain competitive tenders. The Commissioners are most anxious to build suitable houses as cheaply as possible, and have the whole matter under consideration.

The Select Committee reported that they had been impressed with the zeal and enthusiasm of all the staff of the Commission whom they had been able to meet, and that in general they considered that the Commission in their care of State Forests were "doing fine work of national importance which would, in future, secure for the nation satisfactory dividends on their investment".

## RESTOCKING OF DEVASTATED WOODLAND

The 1947 Census of Woodlands showed that at the 1st of October of that year there were 813,000 acres of woodland classed as either felled or devastated, besides 497,000 acres of scrub, that is in all 1,310,000 acres or 38 per cent. of the total area of woodland. During the three years 1948 to 1950 the Commissioners have replanted or restocked nearly 42,000 acres, while private owners are estimated to have planted about 40,000 acres, most of which was former woodland.

Against this considerable total of over 80,000 acres of new plantations must, however, be set the fact that felling continues. During the calendar year 1950, the only year for which definite figures are available, some 22,000 acres were licensed for clear felling. Part of the area was scrub or devastated woodland and so involves no reduction in the area of productive woodland, but when full allowance is made for this it is still clear that effective progress in rehabilitation is far too slow.

The Commissioners view the position with much concern and, while fully appreciating the efforts which many estate owners are making to restock their woods, consider that the point has now been reached when a positive line of action is necessary in the case of owners who are not prepared to co-operate. The Commissioners have compulsory acquisition powers which they have hitherto been reluctant to employ, but in July, 1949 a clear warning was issued by the Minister of Agriculture and Fisheries, Mr. Tom Williams, M.P. when he informed the House of Commons that "where woodland areas requiring rehabilitation are neither under active consideration for Dedication nor receiving adequate treatment, the Forestry Commissioners will, where necessary, have to acquire those woodlands." The Minister proceeded to express the hope that the majority of owners would recognise the national need for making woodlands fully productive and would co-operate to that end with the Forestry Commission. The Commissioners sincerely echo that hope, but if, in specific cases, all other methods of approach should fail, they will have no option but to use their compulsory powers. In adopting this policy the Commissioners have the full support of the United Kingdom Forestry Committee.

## ACQUISITIONS OF SPECIAL INTEREST

Among the properties approved for acquisition during the year two stand out as of special note, the first, Fasnakyle, together with part of the adjoining Affric estate, in Inverness-shire, and the second, part of Clumber Park estate in Nottinghamshire. The Scottish acquisitions have a total area of over 54,000 acres, comprising a considerable part of the proposed Glen Affric National Park which was recommended by the Scottish National Parks Committee.\* The properties include over 6,000 acres of natural Scots pine and birch forest, remnants of the once extensive Caledonian Forest of the Highlands. There are some 2,000 acres of Scots pine forest which is mostly well-stocked, with many fine old trees up to 200 years of age, and over 4,000 acres of birch thinly stocked but very characteristic of the Highlands. The almost complete absence of young growth indicates that the woods cannot reproduce themselves under existing conditions and will gradually disappear unless steps are taken at once to protect and regenerate them.

The Commissioners considered that it was in the national interest that these uniquely interesting and beautiful woods should be acquired and managed with due regard to their special character. The Commissioners propose to spread the regeneration of these woods over a considerable period, retaining as far as possible the characteristic features of the natural forest.

Much of Clumber Park in the Dukeries, for long owned by successive Dukes of Newcastle, passed a few years ago into the hands of the National Trust from whom the Commissioners have now leased 1,100 acres of woodland for replanting, together with 50 acres of young plantations. The original crop was mostly hardwoods, oak, Spanish chestnut and beech, with a small admixture of Scots pine and larch, but there is some good Corsican pine in the young plantations. Frost is likely to be troublesome in the hollows, but it is hoped to raise a considerable proportion of beech in the new crop.

## THE NEW FOREST, HAMPSHIRE

Some of the provisions of the New Forest Act, 1949 were referred to briefly in the Commissioners' Thirtieth Annual Report. This Act which came into force on the 24th November, 1949, reduced the number of elective Verderers from six to five and added four Verderers, appointed respectively by the Minister of Agriculture and Fisheries, the Forestry Commissioners, the Local Planning Authority, and a body concerned with the preservation of rural amenity.

Additional powers were also conferred on the Verderers enabling them to authorise the Commissioners to enclose further land, up to a maximum of 5,000 acres, for the purpose of growing timber, and to make enclosures not larger than 20 acres in area in any one case for the regeneration of the old ornamental woods. Areas not exceeding 3,000 acres in all may also be enclosed for the purpose of cultivation and the improvement of grazing.

Among other provisions the Commissioners were required to prepare plans showing the properties to which rights of common are attached under the 1877 Award; also to secure the reasonable drainage of the forest and to keep the open grazing sufficiently clear of scrub and self-sown trees.

The Commissioners are proceeding actively with the duties entrusted to them under the Act. Good progress has been made with the prescribed plans, and surveys of the ornamental woods and of the drainage system of the forest have been put in hand.

---

\* Cmd. 7235.

## JOINT INFORMAL COMMITTEES OF THE FORESTRY COMMISSION AND COUNCILS FOR THE PRESERVATION OF RURAL ENGLAND AND WALES

In 1935 a Joint Informal Committee composed of Forestry Commissioners and of members of the Council for the Preservation of Rural England was set up for the discussion of questions concerning amenity. It was hoped by this means to ensure that the claims of amenity received due consideration, and that the Committee would give the Commissioners the benefit of the special knowledge and experience of members of the Council. The Joint Committee, which covered Wales as well as England, has met on seventeen occasions since 1935 and has proved most helpful. During the year under review it was decided to form separate Committees for the two Countries. A Joint Committee for Wales has been appointed, with Mr. Lloyd O. Owen as Chairman, but did not meet until after the end of the year under report. The Joint Committee for England, with Lord Radnor as Chairman, met on 20th July, 1950 and discussed, among other matters, problems likely to arise in the National Parks, afforestation in the Quantocks and at Hardknott Forest in the Lake District, and the regeneration of the ornamental woods in the New Forest.

## EUROPEAN FORESTRY AND FOREST PRODUCTS COMMISSION

The third session of this Commission of the United Nations Food and Agriculture Organisation was held at Geneva at the end of August, 1950, Mr. O. J. Sangar, Director of Forestry for England, being Chairman. Fourteen countries sent delegates and there were also observers from the International Labour Office and the Commonwealth Agricultural Bureaux. Mr. M. Leloup, Director of the Division of Forestry and Forest Products, represented F.A.O.

The session covered a wide range of subjects including forest policy, provision of forest statistics, seed and plant certification, pests and diseases, and the technique of timber extraction. A useful part of the work of this Commission consisted of an examination and discussion of the progress reports submitted by member nations on their general forest policy and problems.\*

---

\* See *Unasyuva*, Vol. IV. No. 4, 1950.

# ORGANISATION

## THE FORESTRY COMMISSIONERS

During the year three changes occurred in the membership of the Commission. Major Sir Samuel Strang Steel, Bt., and Sir William Ling Taylor retired on the 28th November, 1949, on the expiry of their terms of office, and Professor John Walton was appointed a Commissioner on 29th November, 1949.

Sir Samuel Strang Steel had been a Commissioner since 1932, and was Chairman of the National Committee for Scotland from 1948 to 1949. Sir William Taylor's service with the Forestry Commission commenced in 1919; he served first as a Divisional Officer, afterwards successively as Deputy Surveyor of the Forest of Dean, Assistant Commissioner for England and Wales, and as a Forestry Commissioner from 1938. On the reorganisation of the Department in 1946, Sir William Taylor was appointed Deputy Director-General and subsequently Director-General. The Commissioners wish to place on record the long and valuable services which both members have given to the Commission and to British forestry.

The Secretary to the Commissioners, Mr. F. W. Hamilton, retired on 30th June, 1950, and was succeeded by Mr. H. A. Turner.

## THE NATIONAL COMMITTEES FOR ENGLAND, SCOTLAND AND WALES

The National Committees have met at monthly intervals throughout the year. The changes in membership have been few:—Sir William Taylor, who served on the National Committee for England and on the National Committee for Wales, retired from both on 28th November, 1949, on ceasing to be a Commissioner; the changes in the National Committee for Scotland were consequent on the retirement of Sir Samuel Strang Steel, who had been a member of this Committee since its formation in 1945, and Chairman since 1948. Major John Stirling of Fairburn became Chairman in his stead and Professor John Walton was appointed a member of this Committee.

The membership of the Committees at the end of the year is given below, the Chairman of the Forestry Commission being an ex-officio member of each Committee.

### THE NATIONAL COMMITTEE FOR ENGLAND:—

The Earl of Radnor (*Chairman*), The Hon. James W. Best, Major Sir Richard Cotterell, Bt., Major Charles Mitchell, Lord Quibell.  
Secretary to the Committee, Mr. E. S. J. Hinds.

### THE NATIONAL COMMITTEE FOR SCOTLAND:—

Major John Stirling of Fairburn (*Chairman*), Mr. J. M. Bannerman, The Duke of Buccleuch and Queensberry, Mr. John A. Cameron, Mr. J. E. Hamilton, Mr. J. Veitch, Professor J. Walton.  
Secretary to the Committee, Mr. F. C. Handford.

### THE NATIONAL COMMITTEE FOR WALES:—

Mr. Lloyd O. Owen (*Chairman*), Major Sir Richard Cotterell, Bt., Colonel J. C. Wynne Finch, Mr. David Lewis, Professor R. Alun Roberts, Mr. W. H. Vaughan.  
Secretary to the Committee, Mr. M. E. W. Mackenzie.

## THE REGIONAL ADVISORY COMMITTEES

Most of the Regional Committees met twice during the year. Matters discussed in nearly all the regions included the Dedication Scheme, felling licences, thinning grants, timber prices, and the marketing of produce. Other subjects of importance in individual regions were co-operative forestry, the acquisition of land for afforestation or replanting, shelter belts, training courses for foresters and woodmen, advisory services, agricultural shows, fire protection, rabbit control, plant supply, the preservation of hedgerow timber, and the planting of poplars.

The membership of the Committees at the end of the year is given below:—

### ENGLAND

*North-West.*—Capt. G. C. Wolryche-Whitmore (*Chairman*), Mr. J. V. Allen, Mr. N. G. Barraclough, Mr. P. J. B. Clive, Mr. J. Edwards, Mr. T. H. Evans, Mr. G. R. Jacob, Mr. W. M. F. Vane, M.P. Secretary to the Committee, Mr. E. Gower.

*North-East.*—The Rt. Hon. Lord Bolton (*Chairman*), Capt. J. P. Bradford, Mr. A. Kirkup, Jr., Mr. A. M. Leitch, Mr. W. Robertson, Mr. R. Stanley, Col. W. St. A. Warde-Aldam, Professor R. W. Wheldon. Secretary to the Committee, Mr. L. A. Chaplin.

*East.*—Major R. G. Proby (*Chairman*), Major K. W. Brown, Mr. S. Dye, M.P., Col. A. H. Lloyd, Mr. R. W. B. Newton, Col. E. R. Pratt, Mr. D. H. Sanderson, Mr. C. H. Thompson. Secretary to the Committee, Mr. G. H. Clark.

*South-East.*—Col. H. S. Eeles (*Chairman*), Mr. J. W. C. Agate, Lt.-Col. W. R. Burrell, The Rt. Hon. Viscount Cowdray, Mr. W. H. Pearson, Mr. A. D. C. Le Sueur. Secretary to the Committee, Mr. H. W. Gulliver.

*South-West.*—Mr. G. F. Lutterell (*Chairman*), Col. C. M. Floyd, Major H. T. H. Foley, Mr. W. E. Hiley, Mr. J. R. Maeer, Mr. F. K. Makins, Mr. M. Philips Price, M.P., Professor M. Skene. Secretary to the Committee, Mr. G. F. Taylor.

### SCOTLAND

*North.*—The Earl of Cawdor (*Chairman*), Mr. J. Armstrong, Mr. G. Brown, Brig. Gen. J. B. P. Wilkie Fleming, Lord Lovat, Mr. A. R. Mackenzie. Secretary to the Committee, Mr. M. Nicholson.

*East.*—Professor H. M. Steven (*Chairman*), Lord Glentanar, Sir Ian Forbes-Leith, Bt., Mr. W. Leven, Bailie R. A. Raffan, Mr. W. Riddoch. Secretary to the Committee, Mr. J. P. Lenman.

*South.*—The Earl of Haddington (*Chairman*), Sir James Hunter Blair, Bt., Mr. C. J. Cameron, Mr. J. C. Carson, Mr. W. P. Earsman, Mr. J. J. Patterson, Professor J. Ritchie. Secretary to the Committee, Mr. T. H. McGeorge.

*West.*—Captain J. Maxwell MacDonald (*Chairman*), Major D. C. Bowser, Sir George I. Campbell, Bt., Mr. P. Campbell, Capt. J. Craig, Mr. T. Bruce Jones, Professor J. Kirkwood. Secretary to the Committee, Mr. T. Farmer.

### WALES

*North.*—Col. P. R. Davies-Cooke (*Chairman*), Mr. P. S. Barnie, Alderman H. T. Edwards, Capt. G. L. Bennett Evans, Major W. D. Evans, Mr. E. H. Howard, Professor E. C. Mobbs, Professor Thos. Thomson, Mr. D. Tudor, Col. J. F. Williams Wynne. Secretary to the Committee, Mr. K. Mayhew.

*South.*—Major J. D. D. Evans (*Chairman*), Mr. D. G. Badham, Major J. Francis, Mr. I. G. Gordon, Alderman A. E. Gough, Mr. H. A. Hyde, Mr. J. E. Lewis, Mr. M. H. Maxwell, Lord Merthyr. Secretary to the Committee, Mr. W. Evans.

## SUMMARY OF THE YEAR'S WORK

Work in the forests is affected to a great degree by the weather, and in the year under review the rainfall, almost everywhere, was the heaviest recorded for many years. There was, however, a dry spell in the spring, which as usual brought with it a period of fire danger; in England, this also caused considerable losses in some of the newly planted areas, and resulted in slow germination and growth in the nursery seed beds. Nevertheless, the wet summer was generally favourable to the growth of established plantations, though the abnormal rainfall was a great hindrance to all forest operations.

**Finance.**—The payments and receipts for the forest year ended 30th September were:—

			£
Payments	...	...	7,025,414
Receipts	...	...	1,535,748

The amount paid into the Forestry Fund from Parliamentary Votes was £5,495,000, made up of £2,595,000 from the Vote in aid for the financial year 1950 and £2,900,000 from the Vote for 1951. (See page 17.)

**Land Acquired.**—The area of land acquired through the Forestry Fund and under the Transfer of Woods, Act 1923, up to 30th September, 1950, was 1,668,000 acres. This land comprises 1,004,000 acres of "forest land", that is, land that is already planted or to be planted, and 664,000 acres of "other land", which includes forest nurseries, agricultural and grazing land, and other land unsuitable for planting. The areas of the individual categories are given in Table 2 on page 19.

The net area acquired during the year was 109,000 acres, of which 61,000 acres were classed as "plantable land"; the amounts of plantable land acquired in the three countries were:—England 21,000 acres, Scotland 27,000 acres, Wales 13,000 acres. (See page 21.)

**Forest Units.**—The number of forest units formed during the year was 30; of which 11 were in England, 12 in Scotland and 7 in Wales. The total number of forest units at the end of the year was 381. (See page 19.)

**New Plantations.**—The area planted during the year was 53,737 acres, of which 17,728 acres were in England, 24,345 acres in Scotland and 11,664 acres in Wales (see page 22). Over 108 million young forest trees were used in making these plantations and in replacing failures in recently formed plantations. (See page 24.)

**Forest Nurseries.**—An addition of 37 acres was made to the area used for forest nurseries, making a total of 2,270 acres. The stocks of seedling and transplanted forest trees amounted to 502 million, made up of 307 million seedlings and 195 million transplants. (See page 25.)

**Fire Protection.**—The fire hazard during the year was low, and, with the exception of the year 1937, the area burned was the smallest for the past twenty-five years. The number of fires which had to be dealt with was 874, the area of plantation burned being 158 acres. (See page 31.)

### Preparation and Sales of Produce

**Thinning and Clear Felling.**—Most of the produce sold from the State forests came from the thinning out of young plantations. The area thinned was 31,996 acres made up as follows:—England 19,904 acres, Scotland 7,551 acres, and Wales 4,541 acres. The area clear felled was 1,221 acres of which 907 acres were in England, 240 acres in Scotland and 74 acres in Wales. (See Table 22, page 32.)

*Sales of Forest Produce.*—The gross income from sales of all classes of forest produce was £1,293,212, with an expenditure under the corresponding head of account of £724,081. The quantity of produce sold or used for forest purposes was over 9 million cubic feet, the major products being pitwood, round timber, telegraph transmission and other poles. (See page 32.)

*Licensing of Timber Felling*—Licences were issued during the nine months to 30th September 1950, for the felling of 31,825,000 cubic feet of timber. (See page 33.)

**Roads.**—At the end of the year work was proceeding at 127 forests, and a total of 259 miles of roadway had been completed. The road work included the erection of one bridge of 120 foot span and six with spans of between 60 and 80 feet. (See page 33.)

**New Houses.**—During the year 247 new houses for local supervisors and workmen were completed, and work was in hand on 749 houses. (See page 34.)

**Technical Supervision.**—The Directors of Forestry have been assisted by 19 Conservators, the Deputy Surveyor of the New Forest, the Deputy Surveyor of the Dean Forest, 26 Divisional Officers and 162 District Officers. During the year 30 appointments to the District Officer grade were made. Local supervision of the forests was carried out by 575 Foresters and 326 Foremen. (See page 35.)

**Forest Labour.**—The number of workers employed on forestry operations in State forests at the end of September, 1950, was 12,100; of this number 1,000 were on road work. These numbers are the same as at the end of the previous forest year. (See page 35.)

**Planting on Private Estates.**—During the year 13,797 acres of plantations were inspected and passed for payment under Interim Grants Schemes, and 1,459 acres under Dedication Schemes. The area planted on private estates during the year without the aid of grants is estimated at 3,100 acres. (See page 36.)

**The Dedication Scheme.**—Dedication deeds were completed by 35 owners in respect of 23,448 acres of woodland. Plans of Operations had been approved and deeds were in course of preparation for a further 61 estates with a woodland area of 26,402 acres. In addition, 374 estates with 272,000 acres of woodland had started on the preparation of Plans of Operations. (See page 37.)

**Education.**—Grants amounting to £12,436 were made to the Universities of Aberdeen, Cambridge, and Edinburgh, to the Imperial Forestry Institute, Oxford, and to the University College of North Wales, Bangor. (See page 39.)

At the five Forester Training Schools maintained by the Commissioners, 128 men completed the full course. Of these 93 were appointed to the State service, 14 took up positions in private forestry and 12 secured posts in the Colonial and Dominion Forest Services; 6 nominees returned to their respective Services in Northern Ireland and Cyprus; 3 did not take up forestry as their subsequent employment. (See page 38.)

Short courses of three months duration were given on three private estates for foresters and foremen; these were attended by 29 men from private estates and 16 men from State forests. (See page 38.)

Under the Forest Workers Training Scheme 205 men either completed their full year's training or entered a Forester Training School. At the end of the year 107 men were still in training. (See page 38.)

The Universities continued to make use of Northerwood House as a centre for giving practical instruction to forestry students. Courses on the practice of forestry, each of a week's duration, were given by the Commissioners' staff to landowners, timber merchants, and employees of timber firms; a special course was arranged for Provincial Land Commissioners of the Ministry of Agriculture and another for school teachers. Courses for the Commissioners' own staff were also held. (See page 38.)

Forestry exhibits and demonstrations were provided at 16 of the principal agricultural shows. (See page 39.)

**Research and Experiment.**—Research into forestry problems was continued at the Forest Research station at Alice Holt Lodge, near Farnham, and at the many experimental areas in the State forests and nurseries. Investigations were continued into methods of rehabilitating derelict broadleaved woodlands. 37 additional sample plots for the compilation of yield tables were established. Attention was specially directed to the selection of high quality trees and stands of the species being used for afforestation with a view to the provision of seed from elite stock. (See page 39.)

Research on poplars has continued and the number of clones now under observation is 216. A survey was made of the extent of the recently discovered Sycamore Disease. The Large Larch Sawfly which has reappeared in some localities is being studied. (See page 42.)

Investigations are being made into the problems connected with the extraction of thinnings from young plantations, and into the development of mechanical methods in forestry. (See page 43.)

Grants for forest research in specific fields have been continued to Universities and other institutions as follows:—Aberdeen University, for botanical investigations of forest trees; Rothamsted Experimental Station, for research on soils and also on the nutrition of trees in forest nurseries; the Macaulay Institute for Soil Research, Aberdeen, and the Imperial Forestry Institute, Oxford, for soil research; Bedford College, University of London, for soil mycological investigations. (See page 43.)

**Publications.**—New publications issued during the year included the Report on Forest Research for the year ended March, 1949, three Forest Records, three booklets in the Britain's Forests series, and the National Forest Park Guide for Glen Trool. (See page 44.)

**National Forest Parks.**—The six National Forest Parks, covering 237,750 acres, continued to attract increasing numbers of visitors. (See page 45.)



## THE FORESTRY FUND

The Forestry Fund was established by the Forestry Act, 1919. From it is paid all the expenditure of the Commissioners, and into it are paid their receipts from sales of forest produce, rentals, etc., together with such sums as are voted annually by Parliament. The amount required from Parliament each year is provided in the form of a grant in aid which is voted in respect of the Financial Year ending 31st March, and drawn upon through the year as and when required to replenish the Forestry Fund. Up to and including the Financial Year ending 31st March, 1949, the Commissioners were permitted to draw the full amount of the grant in aid before the close of the Financial Year and to carry forward any unexpended balance to the following year. From the Financial Year ending 31st March, 1950, however, any balance of the grant in aid not required during the Financial Year may not be drawn from the Exchequer, and the Commissioners may only carry forward a small working balance to the new Financial Year at 1st April. Thus the amount voted by Parliament for the Financial Year ending 31st March, 1950, was £5,895,000, of which £5,195,000 was drawn into the Forestry Fund by the end of the year.

Because of this alteration in the method of drawing on Parliamentary grants in aid, Table 1 below, which shows movements on the Forestry Fund Account since the establishment of the Commission, has been prepared on a different basis to that used in the corresponding table in previous Annual Reports. In previous years, it has been the practice to show the Parliamentary Vote each year as having been drawn in full (as invariably it would have been by the end of the Financial Year) and to include it in total in the Receipts of the Forestry Fund for the Forest Year. The balance carried forward at 30th September to the next Forest Year, included therefore the whole undrawn balance of the Vote for the current Financial Year. In the table below, the account for each Forest Year shows only the actual drawings from the Exchequer during that Forest Year, and the balance at 30th September is the actual balance in the Forestry Fund at that date.

The amount voted by Parliament for the Financial Year to 31st March, 1951, was £6,750,000. The amount drawn from the Vote into the Forestry Fund during the Forest Year to 30th September, 1950, was £5,495,000, made up of £2,595,000 from the Vote for the Financial Year ended 31st March, 1950, and £2,900,000 from the Vote for the corresponding year ending 31st March, 1951.

### FORESTRY FUND—SUMMARY

Table 1

Year ended 30th September

£

	Balance from Preceding Year	Receipts			Payments (Appendix 1)
		Total	From Parliamentary Votes	From Forestry Operations, etc. (Appendix 1)	
	(1)	(2)	(3)	(4)	(5)
GRAND TOTAL, 1920-1950	—	45,937,662	34,302,800	11,634,862	45,692,314
1920-29	—	4,421,484	3,570,000	851,484	4,502,018
1930-39	—	8,114,652	6,292,800	1,821,852	7,926,093
1940-45	—	6,873,038	3,089,000	3,784,038	6,927,334
1946	53,729	1,912,504	1,350,000	562,504	1,937,614
1947	28,619	3,959,062	3,300,000	659,062	3,870,060
1948	117,621	6,675,749	5,606,000	1,069,749	6,622,524
1949	170,846	6,950,425	5,600,000	1,350,425	6,881,257
1950	240,014	7,030,748	5,495,000	1,535,748	7,025,414
1951	245,348	—	—	—	—

Appendix 1, page 47, gives the payments analysed by heads of account, and the receipts from Forestry Operations, etc. It will be seen that payments increased by £144,157 as compared with the previous year; receipts, most of which are from forest produce, increased by £185,323, a rise of nearly 14 per cent. on the previous year's total.

Appendix 2, page 48, is a statement of expenditure and income in which amounts due to or by the Commissioners at the end of the Forest Year are brought into account; salaries and overheads shown in columns (2) to (5) of Appendix 1 are distributed over the heads of account to which they are appropriate; income from forestry operations, education, etc., is shown separately; and adjustments are made between heads of account in respect of such items as produce used for forest purposes, transfer of land and buildings between forests and Forest Workers Holdings, and value of work done in forests by trainees and students.

In Appendices 3 to 8, pages 49 to 53, the expenditure and income under the heads given in Appendix 2 are analysed in greater detail. Further details of individual items of expenditure and receipts are discussed under their appropriate heads in the section of this Report dealing with the progress of work (pages 18 to 46).

In the financial tables given in the Commissioners' Annual Reports for 1947 and 1948, the expenditure and income of the Engineering Branch were shown under a separate head, pending a decision as to how much of the net expenditure could fairly be charged to forestry operations and how much must be regarded as expenditure in relief of unemployment. As explained in the Commissioners' Annual Report for last year this Branch was formed at the end of 1946 to construct forest roads in order to relieve unemployment in the vicinity of forest areas and to provide work for the Polish Resettlement Corps; but during the course of 1948 unemployment relief was no longer required, and road work was then limited to the immediate needs of the forests.

From forest year 1949, all expenditure on road construction has been included under the head of Forestry Operations. In regard to the expenditure incurred in 1947 and 1948, it has now been decided that all expenditure of the Engineering Branch for these years on capital equipment, and one half of its other costs up to 30th September, 1948, should be charged to Forestry Operations and that the balance should be charged to "Special Services" under the heading "Relief of Unemployment" (Appendix 8, page 53). The necessary adjustments have been made in the financial tables in this Report.

## **PROGRESS OF WORK**

### **Acquisition and Utilisation of Land**

From the 29th November, 1919, to the end of the year under review 1,668,400 acres of land had been acquired through the Forestry Fund, under the Forestry (Transfer of Woods) Act, 1923, and by gifts from private individuals. This is the net acreage after deducting areas disposed of by the Commissioners. The utilisation or intended utilisation of this land is given in Table 2 below, which shows that 1,004,100 acres are classed as forest land, comprising 673,500 acres of woods and plantations and 330,600 acres still to be planted. The land awaiting planting is distributed between the three countries as follows: England 116,300 acres; Scotland, 161,700 acres; Wales, 52,600 acres. The distribution is considered reasonably satisfactory having regard to the planting programmes of each country. It should be noted that as much as possible of this land is let for grazing until it is required for planting.

UTILISATION OF LAND

Table 2

At 30th September, 1950

Thousand acres

	Great Britain	England	Scotland	Wales
Total Acquired ... ..	1,668·4	557·1	884·1	227·2
Forest Land: Total ... ..	1,004·1	418·5	418·2	167·4
Acquired Plantations ... ..	69·3	51·2	13·6	4·5
Planted by Forestry Commission ... ..	604·2	251·0	242·9	110·3
To be planted ... ..	330·6	116·3	161·7	52·6
Other Land: Total ... ..	664·3	138·6	465·9	59·8
Nurseries ... ..	2·3	1·0	·9	·4
Rough Grazing and Agricultural Land ... ..	402·4	56·0	300·1	46·3
Forest Workers Holdings ... ..	13·2	6·0	3·2	4·0
Unplatable and Miscellaneous ... ..	246·4	75·6	161·7	9·1

Included in the foregoing statement are certain areas which, for the time being, have not been placed at the disposal of the Commissioners by the appropriate Minister. The details of this land are given in Table 3 below.

LAND NOT PLACED AT THE DISPOSAL OF THE COMMISSIONERS

Table 3

At 30th September, 1950

Acres

	Great Britain	England	Scotland	Wales
Total ... ..	326,311	43,728	251,826	30,757
Forest Land ... ..	63,219	10,728	49,892	2,599
Agricultural, rough grazing and miscellaneous ... ..	263,092	33,000	201,934	28,158

FOREST UNITS

To the end of September, 1950, the Commissioners had established 381 forest units, the numbers in each of the three countries being given in Table 4 below. The individual forests are listed by Conservancies in Appendices 12 to 14 on pages 57 to 64, and their distribution is shown on the maps in Appendix 15 on pages 65 to 75.

FOREST UNITS, 1950

Table 4

Number

	Great Britain	England	Scotland	Wales
Number of Forests:—				
At beginning of year ... ..	351	131	164	56
At end of year ... ..	381	142	176	63
Increase during the year ... ..	30	11	12	7

The names of the new units are as follows:—

ENGLAND:—

Cleveland, Yorkshire	Slindon, Sussex (formerly part of Goodwood)
Crawley, Hampshire (formerly part of Micheldever)	Spadeadam, Cumberland
Erme, Devon	Tunstall, Suffolk (formerly part of Rendlesham)
Hemsted, Kent (formerly part of Bedgebury)	Walden, Essex
Hursley, Hampshire	Wharnccliffe, Yorkshire
Shepton, Somerset	

SCOTLAND:—

Boblainy, Inverness-shire	Kilmory, Argyll
Ceannacroc, Inverness-shire	Ledmore, Perthshire
Duns, Berwickshire	Penninghame, Wigtownshire
Glen Coe, Argyll	Stenton, East Lothian
Glen Doll, Angus	Struie, Ross-shire
Glen Errochty, Perthshire	Yair Hill, Selkirk

WALES:—

Coed Penllyn, Merioneth	Gamrhiw, Brecon
Draethen, Glamorgan	Irfon, Brecon
Dunraven, Glamorgan	Pentraeth, Anglesey
Ebbw, Monmouth	

LAND ACQUIRED TO DATE BY LEASE OR PURCHASE

The net total area in respect of which the legal formalities had been completed up to the 30th September, 1950, was 1,524,876 acres. The corresponding totals for 1949 and 1948 were 1,435,248 acres and 1,346,561 acres respectively. In addition to completed acquisitions entry had been secured to certain other areas. A summary of how this land is held and its classification into plantable land and other land is given in Table 5 below.

SUMMARY STATEMENT OF LAND ACQUIRED BY LEASE, OR FEU, OR PURCHASE\*

Table 5 29th November, 1919 to 30th September, 1950 Acres

	Total	By Lease or Feu			By Purchase		
		Total	Plantable†	Other	Total	Plantable†	Other
<b>Total:</b>							
Great Britain	1,548,183	476,115	324,775	151,340	1,072,068	646,933	425,135
England ...	454,781	168,555	145,851	22,704	286,226	221,204	65,022
Scotland ...	871,580	232,677	120,216	112,461	638,903	313,982	324,921
Wales ...	221,822	74,883	58,708	16,175	146,939	111,747	35,192
<b>Acquisitions completed:</b>							
Great Britain	1,524,876	469,959	318,866	151,093	1,054,917	645,178	409,739
England ...	451,873	165,776	143,219	22,557	286,097	221,075	65,022
Scotland ...	854,503	232,622	120,161	112,461	621,881	312,356	309,525
Wales ...	218,500	71,561	55,486	16,075	146,939	111,747	35,192
<b>Entry Secured:</b>							
Great Britain	23,307	6,156	5,909	247	17,151	1,755	15,396
England ...	2,908	2,779	2,632	147	129	129	—
Scotland ...	17,077	55	55	—	17,022	1,626	15,396
Wales ...	3,322	3,322	3,222	100	—	—	—

\* Excluding Crown Woods amounting to 120,000 acres (of which some 60,000 acres are plantable) transferred to the Commissioners under the Forestry (Transfer of Woods) Act, 1923.

† Including planted land.

From the above table it will be seen that of the total area acquired to date, 971,708 acres were classified as plantable at the time of acquisition, and of this area 367,055 acres (38 per cent.) are in England, 434,198 acres (45 per cent.) in Scotland and 170,455 acres (17 per cent.) in Wales.

#### ACQUISITION OF LAND DURING THE YEAR

The area acquired during the year, including land to which entry was secured but in respect of which contracts were not completed, was 109,088 acres. Of this 75,745 acres were acquired by purchase and 33,343 acres by lease or feu; disposals and adjustments amounted to 525 acres.

The net additional area was thus 108,563 acres of which 60,996 acres (56 per cent.) were classed as plantable land, comprising 21,019 acres previously under a tree crop, 1,801 acres of standing woods and 38,176 acres of bare land. Details by countries are given in Table 6 below.

#### LAND ACQUIRED DURING THE YEAR [NET AREA]

Table 6 Year ended 30th September, 1950 Acres

	TOTAL	PLANTABLE LAND				OTHER LAND
		Total	Land previously under a Tree Crop	Standing Woods	Bare Land	
Great Britain ...	108,563	60,996	21,019	1,801	38,176	47,567
England ... ..	30,820	21,240	9,671	339	11,230	9,580
Scotland ....	63,273	27,140	8,105	1,070	17,965	36,133
Wales ... ..	14,470	12,616	3,243	392	8,981	1,854

#### PROGRESS OF ACQUISITION OF PLANTABLE LAND

The progress made in the acquisition of plantable land from 1920 onwards is given in Table 7 below.

The total of almost 61,000 acres acquired during the year is over 8,000 acres more than in the previous year. Although this is the highest figure so far achieved, the Commissioners are not satisfied with the progress made and are intensifying their efforts to acquire suitable land. Special attention is being given to the acquisition of felled or devastated woodland, and as noted in Table 6 above, 21,019 acres of this type of land were acquired during the year.

#### ACQUISITION OF PLANTABLE LAND

Table 7 Year ended 30th September Acres

Period	Total	By Lease or Feu	By Purchase
Total 1920-1950 ... ..	971,708	324,775	646,933
1920-29 ... ..	310,230	156,759	153,471
1930-39 ... ..	344,757	60,057	284,700
1940-45 ... ..	117,528	30,431	87,097
1946 ... ..	33,181	9,996	23,185
1947 ... ..	22,322	13,016	9,306
1948 ... ..	29,945	14,465	15,480
1949 ... ..	52,749	13,628	39,121
1950 ... ..	60,996	26,423	34,573

The expenditure during the year in connection with the acquisition of land, that is purchase, rents and feu duties, etc., was £267,599, made up as follows:—  
£

Purchase of land, including buildings and standing timber	...	...	...	...	216,884
Rents and feu duties	...	...	...	...	42,167
Redemption of tithes	...	...	...	...	8,548
					£267,599

The purchase price of standing timber and buildings on land acquired by lease, as well as on land purchased, is included in the above statement. It should be noted that the expenditure on the purchase of land cannot be directly related to the area acquired during the year, since that area includes land to which entry has been secured.

The average price paid during the year for plantable land, excluding any timber and buildings, was £2 8s. 0d. per acre; the average rent for such land on areas acquired was 2s. 5d. per acre.

### Cultural Operations

Cultural operations include works carried out in the making of plantations, that is—preparatory work such as fencing, clearing of ground, ploughing and draining, the actual planting of the trees, the maintenance of plantations already made and their protection against damage by fire and other causes. Nursery operations also come under this head. Expenditure on cultural operations amounted to £2,073,924—an increase of £3,785 over the amount spent in the previous year (Appendix 3, Col. 6, page 49).

#### PLANTATIONS

The area of plantations made during the year was 53,737 acres, including 393 acres of natural regeneration; in addition 246 acres were underplanted, that is, young trees were introduced under the shelter of an older crop. Of the total acreage, 17,728 acres (33 per cent.) were planted in England, 24,345 acres (45 per cent.) in Scotland, and 11,664 acres (22 per cent.) in Wales. The contributions to these totals made by each conservancy are shown in Table 8 below. Areas planted at individual forests are given in Appendices 12 to 14 (pages 57 to 64).

#### AREAS PLANTED AND UNDERPLANTED

Table 8

In year ended 30th September, 1950

Acres

Country or Conservancy	Planted	Under-planted	Country or Conservancy	Planted	Under-planted
GREAT BRITAIN	53,737	246			
ENGLAND: Total ...	17,728	153	SCOTLAND: Total ...	24,345	62
Conservancy:			Conservancy:		
North West ...	3,094	5	North ...	5,119	5
North East ...	7,466	56	East ...	6,969	40
East ...	2,254	38	South ...	7,521	—
South East ...	1,996	—	West ...	4,736	17
South West ...	1,738	41	WALES: Total ...	11,664	31
New Forest ...	496	6	Conservancy:		
Dean Forest ...	684	7	North ...	6,072	12
			South ...	5,592	19

Table 9 classifies the plantations formed during the year, showing the acreage under conifers and broadleaved species separately, and a further sub-division as between afforestation, i.e., the planting of bare land, and replanting, which denotes the planting up of land formerly under a tree crop. It will be noted that 49,564 acres (92 per cent.) were planted with conifers; of the 4,173 acres planted with broadleaved species the greater part was in England.

The sub-division into afforestation and replanting shows that 37,355 acres (70 per cent.) were afforested, and 16,382 acres (30 per cent.) were replanted. The latter area includes the replanting of 1,228 acres of plantations destroyed by fire.

		Acres			
		Great Britain	England	Scotland	Wales
<b>TOTAL PLANTED:</b>					
All species	... ..	53,737	17,728	24,345	11,664
Conifers	... ..	49,564	14,162	24,311	11,091
Broadleaved	... ..	4,173	3,566	34	573
<b>AFFORESTED:</b>					
All species	... ..	37,355	9,982	17,994	9,379
Conifers	... ..	36,704	9,442	17,983	9,279
Broadleaved	... ..	651	540	11	100
<b>RE-PLANTED:</b>					
All species	... ..	16,382	7,746	6,351	2,285
Conifers	... ..	12,860	4,720	6,328	1,812
Broadleaved	... ..	3,522	3,026	23	473

EXPENDITURE.—The cost of preparatory work and planting amounted to £728,157, an increase of £55,655 as compared with the previous year, but it will be noted from Table 10 below that almost 10,000 acres more were planted than in 1949. The maintenance of plantations made in previous years was given due attention, and “beating up”, that is, the replacing of failures in the two and three year old and older plantations, was carried out where necessary; the expenditure on maintenance was £591,077, a reduction of £20,108 on the previous year. Comparative figures for the past five years are given in Appendix 4, cols. 3 and 4, page 50.

PLANTING PROGRESS TO DATE.—The total area planted by the Commissioners from 1920 to 30th September, 1950, was 639,737 acres; this, however, has been reduced by losses from fire, fellings and other causes to the present actual total of 602,700 acres. The rate at which the planting has been carried out since 1920 is shown in Table 10 below.

		Acres		
		Total	Afforested	Re-planted
Total, 1920-1950	... ..	639,737	463,627	176,110
1920-29	... ..	138,271	101,976	36,295
1930-39	... ..	230,607	174,428	56,179
1940-45	... ..	100,028	71,732	28,296
1946	... ..	10,448	5,884	4,564
1947	... ..	26,356	17,456	8,900
1948	... ..	36,404	23,932	12,472
1949	... ..	43,886	30,864	13,022
1950	... ..	53,737	37,355	16,382

From the above table it may be observed that of the total of 639,737 acres planted by the Commissioners, 463,627 acres were afforested and 176,110 acres were replanted, this latter figure includes 17,134 acres replanted after damage by fire.

The total area planted to date may be further analysed as follows:—

	<i>Total acres</i>	<i>Conifers (acres)</i>	<i>Broadleaved (acres)</i>
Total planted	639,737	591,682	48,055
Afforested	463,627	447,571	16,056
Replanted	176,110	144,111	31,999

PLANTS USED FOR PLANTING AND BEATING-UP.—Over 108 million young trees were planted during the year in the Commissioners' forests. Nearly ninety million were used in forming new plantations and nineteen million were put in to mend failures in the more recently formed older plantations. The main species of trees used for these purposes were in the following proportions:—

Spruces (Norway and Sitka)	...	48 per cent.
Pines (Scots and Corsican)	...	24 per cent.
Larches (European and Japanese)	...	12 per cent.
Broadleaved trees, chiefly Beech and Oak	...	11 per cent.
Douglas Fir and other conifers	...	5 per cent.

Compared with the previous year the proportion of spruces used diminished by 10 per cent., larches increased by 7 per cent., and broadleaved trees increased by 4 per cent. Appendix 9 on page 54 gives details of the numbers of individual species used in each Conservancy. An examination of this table brings out the following points. The Scots and Corsican pines are planted chiefly on the eastern side of Britain, and the spruces, both Norway and Sitka, in the West, and also along both sides of the Scottish Border. Nearly all the oak, beech and other broadleaved species used have been planted in England and Wales.

#### NURSERIES

During the year some of the smaller and less economic nurseries were closed down and more suitable land taken in elsewhere, resulting in an addition of 37 acres to the nursery area. Although most of the nurseries are still of the standard type, established on agricultural land, a considerable area is now on cultivated heathland. The areas of each type at the end of the year were:—

On agricultural land	1,928 acres
On heathland	342 acres
Total	<hr/> 2,270 acres <hr/>



The heathland nursery technique was described in the Commissioners' Annual Report for 1949, but briefly, the advantages are that the seed beds are almost weed-free for the first year or two, and generally an increased yield of more sturdy and taller seedlings is obtained.

Expenditure on nurseries during the year amounted to £509,165, a decrease of £8,952 compared with the previous year.

AREA.—Nurseries are treated on a rotation of cropping in order to keep the land in good heart, and, with the large programmes of sowing and lining out now being undertaken, it is necessary to have suitable ground in the nursery available in the autumn so that lining out and other work is not held up for lack of space. From Table 11 below it will be noted that, for the nurseries as a whole, the ground under fallow and green crops amounts to 33 per cent. The area under seed beds and transplant lines occupied 16 and 33 per cent. respectively.

#### USE OF NURSERY GROUND

Table 11

At 30th September, 1950

Acres

	Total	Seedbeds	Transplant Lines	Fallow and Green Crops	Other
GREAT BRITAIN ... ..	2,270	370	755	740	405
<i>Percentage of total area</i> ...	100	16	33	33	18
ENGLAND: Total ... ..	949	140	289	351	169
Conservancy:					
North West ... ..	227	25	62	77	63
North East ... ..	175	26	84	37	28
East ... ..	176	35	47	69	25
South East ... ..	110	14	30	51	15
South West ... ..	128	22	38	46	22
New Forest ... ..	92	6	21	54	11
Dean Forest ... ..	41	12	7	17	5
SCOTLAND: Total ... ..	898	147	298	317	136
Conservancy:					
North ... ..	232	48	56	103	25
East ... ..	204	28	89	50	37
South ... ..	223	36	83	67	37
West ... ..	239	35	70	97	37
WALES: Total ... ..	423	83	168	72	100
Conservancy:					
North ... ..	202	45	86	32	39
South ... ..	221	38	82	40	61

STOCKS OF TRANSPLANTS AND SEEDLINGS.—The stocks of forest trees in the nurseries at the 30th September were 195 million transplants and 307 million seedlings. Compared with the previous year this is an increase of 40 million transplants but a reduction of 96 million in the number of seedlings. Comparative figures for the past three years, subdivided by countries and category of plant are given in Table 12 overleaf.

STOCKS OF TRANSPLANTS AND SEEDLINGS

Table 12

At 30th September

Thousands of Plants

	1948	1949	1950
<b>TOTAL TRANSPLANTS</b>			
Great Britain ... ..	143,770	154,329	195,191
England ... ..	62,296	64,814	64,603
Scotland ... ..	59,819	66,186	84,546
Wales ... ..	21,655	23,329	46,042
<b>CONIFEROUS</b>			
Total, Great Britain ...	134,961	148,398	175,572
England ... ..	54,351	59,455	50,035
Scotland ... ..	59,330	65,997	82,858
Wales ... ..	21,280	22,946	42,679
<b>BROADLEAVED</b>			
Total, Great Britain ...	8,809	5,931	19,619
England ... ..	7,945	5,359	14,568
Scotland ... ..	489	189	1,688
Wales ... ..	375	383	3,363
<b>TOTAL SEEDLINGS</b>			
Great Britain ... ..	416,732	402,559	306,975
England ... ..	120,294	121,290	72,568
Scotland ... ..	221,120	219,358	174,109
Wales ... ..	75,318	61,911	60,298
<b>CONIFEROUS</b>			
Total, Great Britain ...	410,442	364,922	294,426
England ... ..	115,462	90,060	62,951
Scotland ... ..	220,117	217,036	173,224
Wales ... ..	74,863	57,826	58,251
<b>BROADLEAVED</b>			
Total, Great Britain ...	6,290	37,637	12,549
England ... ..	4,832	31,230	9,617
Scotland ... ..	1,003	2,322	885
Wales ... ..	455	4,085	2,047

SEED SOWN.—With the exception of the poplars and willows which are propagated by cuttings, the trees required for planting out in the forest are raised from seed sown in the Commissioners' nurseries. The total amount sown was 193,283 lb., comprising 15,400 lb. of conifer seed and 177,883 lb. of broad-leaved tree seed of which 169,473 lb. were acorns. Compared with the previous year the amount of conifer seed sown was substantially the same; there was, however, a drop in the amount of broadleaved tree seed sown, due to a failure of the beech crop in contrast to the abundance of the previous year.

The quantities of conifer and broadleaved tree seeds sown in the past three years are given for comparison in Table 13 below.

SEED SOWN IN NURSERIES

Table 13 Year ended 30th September lb.

		1948	1949	1950
TOTAL SEED SOWN				
Great Britain ...		73,427	258,777	193,283
England ... ..		53,177	216,631	142,294
Scotland ... ..		11,836	15,671	13,255
Wales ... ..		8,414	26,475	37,734
CONIFEROUS SEED				
Great Britain ...		16,354	15,904	15,400
England ... ..		6,043	4,711	4,479
Scotland ... ..		7,255	7,612	7,604
Wales ... ..		3,056	3,581	3,317
BROADLEAVED SEED				
Great Britain ... ..		57,073	242,873	177,883
England ... ..		47,134	211,920	137,815
Scotland ... ..		4,581	8,059	5,651
Wales ... ..		5,358	22,894	34,417

SOURCES OF SEED.—The coniferous seed sown in the Commissioners' nurseries is mostly obtained from abroad, but the amounts now being collected from plantations at home are considerable and as the extensive areas planted since 1920 become older the amount of home collected seed will increase. We have always been less dependent on outside sources for our requirements of broadleaved tree seeds.

A summary of the amounts of conifer and broadleaved tree seed imported and obtained from home sources in the past two years is given in Table 14 below. This table also gives the amounts sold to the nursery trade and private woodland owners.

SUMMARY OF IMPORTS, HOME COLLECTION AND SALES OF SEED  
IN 1949 AND 1950

Table 14 Year ended 30th September lb.

		1949	1950
Imports:			
Total ...		39,951	31,596
Coniferous ... ..		13,800	18,335
Broadleaved ... ..		26,151	13,261
Home Collected:			
Total ... ..		369,161	221,139
Coniferous ... ..		3,929	3,036
Broadleaved ... ..		365,232	218,103
Sales:			
Total ...		25,691	8,664
Coniferous ... ..		5,351	5,469
Broadleaved ... ..		20,340	3,195

*Home Collected Seed.*—Our requirements of seed of the main coniferous trees are seldom met from home sources. One exception is the Scots pine, but in the present year collections were limited to plantations of special origins as sufficient seed was available in store from previous harvests. Corsican pine, which failed to produce cones in quantity last year, gave a very good yield in the east of England, and a substantial collection of over 2,000 bushels of cones was made. The other main conifers—European larch, Japanese larch, Douglas fir, Norway spruce and Sitka spruce—produced few cones, and the amounts collected were all much below last year's figures.

The total amount of seed collected from broadleaved trees was considerably less than in the previous year due principally to the failure of the beech mast. In the autumn of 1948 there was a heavy crop and 80,000 lb. of beech seed were collected, whereas in the autumn of 1949 beech seed was virtually unobtainable and only 27 lb. were collected. The acorn crop was up to the average and yielded sufficient for our requirements. Ash seeded abundantly, particularly in south-west England, and increased quantities were collected. Sweet chestnut was also available in good quantity in the south of England.

The quantities of cones and broadleaved tree seed collected in the current year are given in Tables 15 and 16 below. Table 15 also gives the quantities of seed extracted from the cones. This operation is carried out at the Commissioners' Seed Extraction Stations at Santon Downham, Suffolk, at Tulliallan Nursery, Fifeshire, and at Gwydyr Forester Training School, Caernarvonshire.

#### HOME COLLECTION OF CONIFER SEED

Table 15

Year ended 30th September, 1950

	Cones collected				Cones kilned	Seed extracted
	Total	England	Scotland	Wales		
	Bushels				Bushels	lb.
Total ... ..	5,352	2,176	3,113	63	5,070	3,036
Scots Pine ... ..	2,626	34	2,585	7	2,445	984
Corsican Pine ... ..	2,082	2,064	11	7	2,076	1,849
European Larch ... ..	59	18	41	—	56	25
Japanese Larch ... ..	15	6	9	—	6	2
Douglas Fir ... ..	23	10	13	—	13	2
Norway Spruce ... ..	13	2	11	—	11	3
Other Conifers ... ..	534	42	443	49	463	171

#### HOME COLLECTION OF BROADLEAVED SEED

Table 16

Year ended 30th September, 1950

lb.

	Total	England	Scotland	Wales
Total ... ..	218,103	201,842	4,278	11,983
Ash ... ..	838	698	—	140
Beech ... ..	27	—	27	—
Oak ... ..	203,294	188,962	3,844	10,488
Sycamore ... ..	527	100	312	115
Sweet Chestnut ... ..	11,567	11,009	—	558
Other Broadleaved Trees ... ..	1,850	1,073	95	682

*Imported Seed.*—In the year under review 18,335 lb. of conifer seed were imported. This is an increase of 4,535 lb. compared with last year, largely due to increased purchases of Sitka spruce and Douglas fir both of which were scarce last season. Satisfactory supplies of these species and of Corsican pine, Japanese larch, Norway spruce and *Pinus contorta* were available. There was a scarcity of *Abies grandis*, and European larch of an acceptable origin was unobtainable.

Imports of seed of broadleaved trees were approximately half that of the previous year, and of the 13,261 lb. imported practically the whole was Red oak from Holland.

Table 17 below lists the quantities of individual species purchased, along with their country of origin.

#### IMPORTED SEED

Table 17 Year ended 30th September, 1950

	Quantity	Value	Origin
	lb.	£	
Total of all species ...	31,596	41,268	—
Coniferous:			
Total ...	18,335	40,837	
Corsican pine ...	2,324	4,042	Corsica
Japanese larch ...	5,530	7,706	Japan
Douglas fir ...	1,858	9,522	Oregon, U.S.A.
Douglas fir ...	1,054	4,789	Washington, U.S.A.
Norway spruce ...	1,017	883	Germany
Norway spruce ...	474	499	Austria
Sitka spruce ...	5,004	11,335	Queen Charlotte Island British Columbia.
Thuja plicata ...	76	126	British Columbia
Tsuga heterophylla ...	252	642	British Columbia
Pinus contorta ...	403	762	British Columbia
Abies grandis ...	110	172	Washington, U.S.A.
Abies grandis ...	8	15	Idaho, U.S.A.
Sequoia sempervirens ...	76	178	California, U.S.A.
European larch ...	16	21	Switzerland
European larch ...	8	29	Czechoslovakia
Pinus mugo ...	21	24	Austria
Pinus radiata ...	21	23	California, U.S.A.
Pinus pinaster ...	10	4	France
Pinus ponderosa ...	21	18	British Columbia
Abies pectinata ...	10	10	Austria
Abies nordmanniana ...	10	5	Austria
Cryptomeria japonica ...	15	9	France
Other conifers ...	17	23	—
Broadleaved:			
Total ...	13,261	431	
Chestnut ...	125	23	Japan
Chestnut ...	96	25	U.S.A.
Oak (Red) ...	12,970	376	Holland
Sycamore ...	22	4	France
Other broadleaved species ...	48	3	—

SALES OF SEED.—By agreement with the nursery trade and with private woodland owners, the Commissioners have continued to import the main supplies of seed of Douglas fir, Sitka spruce, Japanese larch and Corsican pine required for private as well as State planting, and during the current year it

has been possible to meet all requirements. There was also a certain demand for broadleaved tree seed, principally acorns, which the Commissioners were able to meet. Details of the amounts of seed sold are given in Table 18 below:—

#### SALES OF SEED

Table 18

lb.

	Total	Sold to	
		Nursery Trade	Woodland Owners
All species: Total ... ..	8,664	7,893	771
Coniferous: Total ... ..	5,469	5,314	155
Scots pine ... ..	866	846	20
Corsican pine ... ..	421	406	15
European larch ... ..	1	—	1
Japanese larch ... ..	2,050	2,011	39
Douglas fir ... ..	546	534	12
Norway spruce ... ..	624	610	14
Sitka spruce ... ..	685	648	37
Other conifers ... ..	276	259	17
Broadleaved: Total ... ..	3,195	2,579	616
Oak ... ..	3,146	2,551	595
Beech ... ..	21	—	21
Other broadleaved species ... ..	28	28	—

SALES OF NURSERY STOCK.—In addition to seed, the Commissioners sold to the Nursery trade close on 18 million seedling and transplanted forest trees. Details of these are given in Table 19 below.

#### SALES OF NURSERY STOCK

Table 19

Year ended 30th September, 1950

Thousands

All species: TOTAL ... ..	17,982
Coniferous: Total ... ..	16,476
Scots pine ... ..	4,788
Corsican pine ... ..	187
European larch ... ..	568
Japanese larch ... ..	2,392
Douglas fir ... ..	548
Norway spruce ... ..	4,959
Sitka spruce ... ..	2,818
Thuja ... ..	137
Other conifers ... ..	79
Broadleaved: Total ... ..	1,506
Oak ... ..	286
Beech ... ..	1,142
Other broadleaved species ... ..	78

## Forest Protection

The work included in Forest Protection falls under two heads—protection against fire, and protection against damage by animals, insects and fungus diseases. The cost of these operations during the year was £245,525; fire protection accounted for £134,342 which is £32,231 less than in the previous year, and protection against other causes of damage, mainly against rabbits was £111,183, an increase of £9,421. Expenditure on forest protection as a whole thus shows a decrease of £22,810 compared with the previous year. The amounts spent in previous years are shown in Appendix 4, col. 5, page 50.

### FIRE PROTECTION

This was a year of high rainfall over most parts of the country. Apart from one dry spell in the late spring, the fire hazard of the year was low. In spite of this, the forest staff had to deal with 874 outbreaks either in or threatening the Commission's plantations; of these outbreaks, 92 per cent were extinguished before they had caused damage, the highest proportion yet recorded for the country as a whole. The area of plantations burned amounted to 158 acres, the lowest loss with the single exception of the year 1937, for the past twenty five years. It is of interest to note that one fire accounted for more than half the area of plantations burned during the year, the next largest being 12 acres in extent. The weather during the year was admittedly favourable but the small area of plantations lost by fire may be taken as a measure of the alertness of the local forest staff and the efficiency of the fire protection arrangements.

The numbers and extent of forest fires over the past five years, and the assessed loss are given in Table 20 below, while Table 21 analyses the causes of the forest fires which occurred during the year.

### NUMBER AND EXTENT OF FOREST FIRES, 1946-1950

Table 20

Year ended 30th September

	Number of Fires	Area Burned (acres)	Assessed Damage £
1946 ... ..	803	1,104	26,000
1947 ... ..	701	645	25,000
1948 ... ..	1,189	1,837	45,000
1949 ... ..	1,094	489	22,000
1950 ... ..	874	158	7,000

### CAUSES OF FOREST FIRES

Table 21

Year ended 30th September 1950

	Number of Fires	Area Burned (acres)
Total ... ..	874	158
Railways ... ..	638	29
Adjoining Land ... ..	123	85
General Public ... ..	61	22
Commission Employees ... ..	9	2
Road Engines ... ..	2	—
Miscellaneous ... ..	9	1
Unknown ... ..	32	19

An examination of the causes of forest fires given in the above table shows that railways, though responsible for 73 per cent. of the outbreaks, caused a loss of only 18 per cent. of the area of plantations burned. The greatest loss of plantations was caused by fires originating on adjoining land, one of which amounted to 83 acres; the others were either stopped before entering the plantations or extinguished with very little loss of plantation. Compared with last year the causes of fires follow very much the same pattern, fires from railways being greatest in number, then fires coming from adjoining land and then fires caused by the general public.

#### PROTECTION AGAINST RABBITS

Throughout the country there has been a large increase in the number of rabbits and energetic measures have been required to keep the young plantations free from this destructive pest. In and around the young plantations and on areas being prepared for planting over 200,000 rabbits were killed during the year.

### Preparation and Sale of Produce

#### THINNING AND CLEAR FELLING

As in the previous year the greater part of the produce obtained from the Commissioners' forests came from thinnings made in the younger plantations. During the year 32,000 acres were thinned, of this 15,000 acres were thinned for the first time, and 17,000 acres had already been thinned one or more times. Most of the work of felling and extracting the poles is done by the local forest staff, but an increasing amount is being done by timber merchants, 3,131 acres of thinnings being sold standing, as against 1,800 acres in the previous year. The total area clear felled amounted to 1,221 acres, some 370 acres more than last year; much of the clear felling is accounted for by the clearance of birch scrub and cleaning up devastated woodlands. Details of the acreages thinned and clear felled in each conservancy are given in Table 22 below.

#### AREAS THINNED AND FELLED

Table 22

Year ended 30th September, 1950

Acres

	Thinned	Felled		Thinned	Felled
GREAT BRITAIN: Total	31,996	1,221	SCOTLAND: Total ...	7,551	240
ENGLAND: Total ...	19,904	907	Conservancy:		
Conservancy:			North ... ..	1,905	196
North West ...	2,609	101	East ... ..	3,235	13
North East ...	1,539	36	South ... ..	1,317	18
East ... ..	8,273	203	West ... ..	1,094	13
South East ...	963	225	WALES: Total ...	4,541	74
South West ...	2,493	139	Conservancy:		
New Forest ...	1,961	122	North ... ..	2,188	2
Dean Forest ...	2,066	81	South ... ..	2,353	72

#### SALES OF FOREST PRODUCE

The produce sold or used for forest purposes was over 9 million cubic feet. The most important individual product was pitwood of which over 3 million cubic feet were prepared and sent direct to the mines; this does not cover all the pitwood originating from the State forests as further quantities reach the mines from timber, poles and thinnings sold to merchants.



Other produce from the State forests includes round timber and saw logs, posts and stakes for fencing, telegraph, transmission and other poles, and material for pulpwood and firewood. Small quantities of oak bark for tanning were also harvested and many thousand bundles of fascines were supplied for protective works against coast erosion.

The income from sales of forest produce increased during the year by £203,324 to £1,293,212; of this amount, sales of plants from the forest nurseries accounted for £47,959 and sales of timber, thinnings, etc., for £1,245,253. Expenditure on preparation of produce was £724,081, an increase of £22,594 compared with last year. (Appendix 3, cols. 7 and 15, page 49).

### Licensing of Timber Felling

From January 1950 the Forestry Commission became the licensing authority for the felling of timber in Great Britain. The licences issued during the nine months ended 30th September, 1950, were 6,579 in number, and covered 31,825,000 cubic feet. This volume was apportioned between conifers and broadleaved species as follows:—

### CORRIGENDUM

Page 33, under section headed "Licensing of Timber Felling,"  
*For the word "diameter" in each case read "quarter girth."*

(12460)

Broadleaved species—		
Over 6 inches diameter	...	20·254
Under 6 inches diameter		<u>1·417</u>
Total		<u>21·671</u>
Grand Total		<u>31·825</u>

### Roads

During the year 259 miles of forest roads were completed, of this 160 miles were all-weather roads and 99 miles fair-weather roads, that is, of a lighter construction designed for forest traffic during periods when the road surface is dry. In addition, at the end of the year, 89 miles of road were under construction at 127 forests. Details are given in Table 23 below. Road work during the year included the building of the necessary culverts and bridges, one bridge having a span of 120 feet, and six having spans of between 60 and 80 feet.

Expenditure during the year amounted to £444,812, a reduction of £94,844 on the previous year, notwithstanding the additional length of road constructed, 259 miles as compared with 232 miles in 1949. The greater use of mechanical equipment, coupled with a modification of the specification for some of the roads constructed, has contributed towards this result.

FOREST ROADS

Table 23

Year ended 30th September, 1950

	Length of Road (Miles)				Number of Forests at which work was proceeding
	Completed		Under Construction		
	All weather	Fair weather	All weather	Fair weather	
GREAT BRITAIN, Total	160	99	68	21	127
England ... ..	71	29	46	5	43
Scotland ... ..	58	40	12	11	60
Wales ... ..	31	30	10	5	24

**Holdings and Estate Management**

The Estate staff have been occupied with the management of the considerable number of tenancies comprised in the Commissioners' estates. These include agricultural holdings, houses for local supervisors and workmen, cottages, residential properties and sporting, as well as numerous easements and permissions of different kinds. Details of these tenancies are given in Table 24 below.

TENANCIES

Table 24

Year ended 30th September, 1950

Number

Description	Great Britain	England	Scotland	Wales
Forest Workers Holdings ... ..	1,474	703	410	361
Other Tenancies: TOTAL ... ..	6,941	3,464	2,623	854
Agricultural Holdings:				
Under £20 per annum ... ..	1,327	475	480	372
Over £20 per annum ... ..	491	182	158	151
Foresters Houses ... ..	401	120	242	39
Cottages ... ..	1,405	698	674	34
Residential and Sporting ... ..	884	432	361	91
Easements, Permissions, Minerals, etc. ...	2,237	1,557	513	167
Site Rents and Feus ... ..	195	—	195	—

FOREST WORKERS HOLDINGS

The Commissioners at present give priority to the erection of houses for local supervisors and workmen rather than of smallholdings and only one new Forest Workers Holding was made during the year. The number at 30th September, was 1,474 of which 703 were in England, 410 in Scotland, and 361 in Wales. The expenditure was £46,793 and income £25,329; details are given in Appendix 5 on page 51.

NEW HOUSES

Lack of accommodation for local supervisors and workmen in many of the forests has had a hampering effect on the Commissioners' operations. The number of new houses completed during the year was 247 of which 49 were

in England, 178 in Scotland, and 20 in Wales; at the end of the year under review, 749 additional houses were in the process of construction. The position has improved somewhat since last year when the comparative figures were: new houses completed 237, under construction 417.

Expenditure on new buildings amounted to £832,309, and on building repairs to £59,169. The income from rents and royalties amounted to £122,842. (Appendix 3, cols. 9 and 14, page 49).

### **Stores**

Total expenditure £663,634 (Appendix 3).

The expenditure under this head of account covers the purchase and maintenance of manual tools, road vehicles, tractors used for forest, nursery and road work, ploughs and other cultivating equipment, as well as road-making plant of various types, and the hire of equipment. Expenditure during the year showed an increase of £117,935 as compared with the previous year. New equipment cost £254,543, repairs and maintenance £330,765, and hire of equipment £78,326.

### **Miscellaneous Expenditure**

Total expenditure £616,133 (Appendix 3 col. 11).

Miscellaneous expenditure showed an increase of £82,246 on the previous year. This head of expenditure includes the cost of transporting forest workers in isolated areas, payments to forest workers for holidays and time lost owing to bad weather, farming and estate expenses, the upkeep of hostels and bothies, local rates, legal charges, and pensions paid to forest workers and the lower supervisory grades.

### **Technical Supervision**

There has been no change in the organisation of the technical staff at the Headquarters of the Commission and in the Directorates. The Director General and Deputy Director General have been assisted by the Directors of Forestry for England, Scotland and Wales, and by the Director for Research and Education. The technical staff of the Directorates comprises 19 Conservators, the Deputy Surveyor of the New Forest, the Deputy Surveyor of the Dean Forest, 26 Divisional officers, and 162 District officers. During the year 30 appointments were made to the District Officer grade, four officers of this grade left the service, and eight officers were promoted to Divisional officer rank.

The local supervision of the work in the individual forests is carried out by Foresters and Foremen, most of whom have been recruited from men who have passed through one of the Commissioners' Forester Training Schools. The numbers in these grades at the 30th September, 1950, were: Foresters 575, and Foremen 326.

### **Labour Employed in State Forests**

The number of men, women and boys employed on forestry operations and on road work at the 30th September, 1950, was 12,100; the number on road work was 1,000. These numbers are the same as at the corresponding date in 1949.

### **Private Forestry**

The total expenditure during the year under the head of Private Forestry was £194,348. This expenditure includes payments of grants under the Interim Planting Grant Scheme, the Dedication Scheme and the Thinning Grant Scheme, also payments made to the Liverpool Corporation in connection with a proceeds-sharing scheme at Lake Vyrnwy, and the salaries and other expenses of the staff engaged in administering the above schemes and employed on agency and advisory work.

Expenditure on Private Forestry comprised:—

	£
Interim Planting Grants ... ..	131,814
Dedication Schemes ... ..	2,259
Thinning Grants ... ..	15,470
Liverpool Corporation Proceeds-Sharing Scheme ... ..	3,002
Advisory services, including overhead charges	41,803
Total	£194,348

PLANTING ON PRIVATE ESTATES

During the year 1,001 planting schemes under the Interim Grants Scheme and under the Dedication Scheme were inspected and passed for payment; these schemes covered a total of 15,256 acres of plantations, of which 11,897 acres were planted in the year under report, the balance of 3,359 acres being mostly planted in 1949. The acreages inspected and passed for payment under Interim Grants Schemes and under Dedication Schemes are given in Tables 25 and 26 below.

In addition to the planting noted above, the Commissioners are aware that a substantial acreage has been planted on certain estates without the aid of planting grants; the extent of such planting is not accurately known, but from estimates supplied by the Commissioners' Private Woodlands Officers it is believed to amount to about 3,100 acres. This would bring the total area planted during the year on private estates to about 15,000 acres.

PLANTING UNDER INTERIM GRANTS SCHEMES

Areas inspected and passed for payment

Table 25 Year ended 30th September, 1950

	Great Britain	England	Scotland	Wales
Number of Schemes ... ..	959	688	209	62
Area planted (acres)				
Total ... ..	13,797	8,870	4,256	671
Conifers ... ..	8,120	3,664	3,989	467
Broadleaved ... ..	540	483	23	34
Mixed ... ..	5,137	4,723	244	170

PLANTING UNDER DEDICATION SCHEMES

Areas inspected and passed for payment

Table 26 Year ended 30th September, 1950

	Great Britain	England	Scotland	Wales
Number of Schemes ... ..	42	17	25	—
Area planted (acres)				
Total ... ..	1,459	315	1,144	—
Conifers ... ..	1,226	107	1,119	—
Broadleaved ... ..	49	43	6	—
Mixed ... ..	184	165	19	—

## THE DEDICATION SCHEME

The Dedication Scheme is making steady though not spectacular progress. The number of estates for which dedication has been completed has risen from 18 at September, 1949, to 53 at the 30th September, 1950, and the acreage of woodland dedicated, from 13,273 to 36,721 acres. In addition at 30th September, 1950, deeds of dedication relating to 61 estates, covering a total area of 26,402 acres of woodlands, were in process of completion. It is also satisfactory to record that the number of estates taking steps to prepare the necessary plans of operations rose from 248 at 30th September, 1949, to 374 at 30th September, 1950, and the corresponding woodland area from 230,000 acres to 272,000 acres.

Of the 35 estates for which dedication deeds were completed during the year, 11 estates with a total of 9,062 acres of woodland are in England, 22 estates with 14,165 acres in Scotland and 2 estates with 221 acres in Wales. Details by countries are given in Table 27 below; acreages planted are given in Table 26, page 36.

### PROGRESS OF DEDICATION

Table 27  
Year ended 30th September

	Great Britain		England		Scotland		Wales	
	Number of Dedications	Area (acres)	Number of Dedications	Area (acres)	Number of Dedications	Area (acres)	Number of Dedications	Area (acres)
Total, 1948-50	53	36,721	20	14,282	31	22,218	2	221
1948 ...	1	1,006	1	1,006	—	—	—	—
1949 ...	17	12,267	8	4,214	9	8,053	—	—
1950 ...	35	23,448	11	9,062	22	14,165	2	221

## THINNING GRANTS

This is the second year of operation of this scheme and applications for grants have come in steadily throughout the year. The Commissioners are satisfied that this subsidy has encouraged many owners to undertake thinnings which otherwise might have been neglected. Payments are not made until schemes have been inspected after the work has been completed, and at the end of the year under report many schemes were still in progress. The number of schemes inspected and approved for payment rose from 203 in 1949 to 779 in 1950, the area thinned increased from 3,367 acres to 16,724 acres and the estimated yield of thinnings rose from 1.1 million to 6.6 million cubic feet. The number of schemes inspected and passed for payment during the year in each of the three countries is given in Table 28 below.

### THINNING GRANTS

Table 28  
Year ended 30th September, 1950

	Number of Schemes	Area (acres)	Estimated Volume (cubic feet)
GREAT BRITAIN ... ..	779	16,724	6,553,126
England ... ..	337	4,524	1,565,833
Scotland ... ..	389	11,002	4,661,408
Wales ... ..	53	1,198	325,885

## Education

Expenditure on education, which includes the maintenance of Forester Training Schools, Short Courses, the Forest Workers Training Scheme, and also grants to educational institutions, amounted to £177,232; income, which consisted of payments by private employers for the services of trainees under the Forest Workers Training Scheme, payments by trainees for board and lodging, and the value of work done by trainees and students in the Commissioners' forests, was £58,342. Details will be found in Appendix 6 on page 52.

### FORESTER TRAINING SCHOOLS AND SHORT COURSES

Expenditure under these heads amounted to £94,560, made up as follows: salaries and expenses of instructors £18,902, allowances to men under training £32,914, and rent, stores and fuel, etc., etc., £42,744. Expenditure on Northerwood House is included under these heads.

The Commissioners maintain five Forester Training Schools at which a two years course is given. Two of these Schools, Parkend in the Forest of Dean and Lynford Hall near Thetford, are in England; two, Glentress and Benmore, are in Scotland; and the fifth, Gwydyr, is in North Wales. Altogether 269 men were in residence during the year, and 128 completed the two years of training and were awarded Forester's Certificates. Ninety-three of these entered the State service, fourteen took up positions in private forestry, and twelve secured posts in Colonial and Dominion Forest Services; four students, nominated by the Government of Northern Ireland, returned to that country on the completion of their training, while two Cypriot foresters went back to the Forestry Service in Cyprus. Three of the men who qualified did not take up forestry as their subsequent employment. The number of students in their first year of training was 136, including four men nominated by the Government of Northern Ireland. At the end of the year, five of the first year men were not considered suitable for the further year's training and were awarded Foreman's Certificates.

Short courses for foresters and woodmen were held during the spring on three private estates—Raby Castle in Durham, Dartington Hall in Devon, and Darnaway in Morayshire. These courses were attended by 45 men: 29 were from private estates and 16 from State forests. Forty-three of those attending took the examinations held by the Royal Forestry Societies for the Woodman's Certificate (in England) and the Junior Forester's Certificate (in Scotland), and all were successful. The thanks of the Commissioners are due to Lord Barnard, to the Dartington Hall Trustees, and to the Earl of Moray, for the facilities which they kindly provided for these courses.

### FOREST WORKERS TRAINING SCHEME

With fewer ex-service men coming forward for training, the expenditure on this scheme showed a marked drop as compared with the previous year; in all £48,581 was expended, as against £137,421 in 1949. Of the current year's expenditure, £26,451 represented allowances to trainees, and £22,130 expenditure on the maintenance of training centres, etc. Altogether 205 men either completed their full year's training or entered a Forester Training School. Of these 94 took up employment under the Forestry Commission, 34 went to private estates, 64 entered Forester Training Schools and 13 took employment other than forestry. At the end of the year 107 men were in training, 95 being at Commission forests and 12 on private estates.

### NORTHERWOOD HOUSE

The facilities provided by Northerwood House, the Commissioners' educational centre in the New Forest, were again put to effective use. Parties of students from five Universities—Oxford, Cambridge, Aberdeen, Edinburgh,

and the University College of North Wales at Bangor—were accommodated whilst studying working plan methods and silviculture in the New Forest; these parties occupied Northerwood House for a total period of five months. Seven short courses were given for various groups interested in forestry; three of these, dealing mainly with forest practice, were arranged for landowners and timber merchants, while two were given for the employees of timber firms; a special course was arranged for the Provincial Land Commissioners of the Ministry of Agriculture, and another for school teachers. This latter course, which was attended by teachers from many parts of the country, was a new departure. In addition, 10 short courses for the Commissioners' own staff were held covering the following subjects: nursery work (2), forest management (3), fire protection (2), silviculture for the Commissioners' engineers and land agents (2), organisation and methods for office staff (1).

#### FORESTRY EXHIBITS

Forestry exhibits, together with demonstrations of nursery work, the thinning of plantations, and the conversion of small woodland produce, were provided at sixteen of the principal agricultural shows, including the Royal Show at Oxford, the Royal Highland Show at Paisley, and the Royal Welsh Show at Abergele. Five smaller exhibits for local agricultural shows were arranged by Conservators, and one by the Gwydyr Forester Training School. In staging these exhibits, liaison was maintained with the Forestry Societies, the Forest Products Research Laboratory and the Timber Development Association.

#### GRANTS TO EDUCATIONAL INSTITUTIONS

To promote higher education in forestry, grants amounting to £12,436 were made during the year to the Universities of Aberdeen, Cambridge, and Edinburgh, to the Imperial Forestry Institute, Oxford, and to the University College of North Wales, Bangor.

The amounts to individual institutions were as follows:—

	£
University of Aberdeen ... ..	1,918
University of Cambridge ... ..	250
University of Edinburgh ... ..	1,500
Imperial Forestry Institute, Oxford ...	5,705
The University College of North Wales, Bangor ... ..	3,063
Total ...	£12,436

A grant of £50 was also made to a forestry graduate of the University of Aberdeen to supplement a travelling fellowship in the United States.

#### Research and Experiment

Research work and special investigations into forestry problems were continued at the Forest Research Station, Alice Holt Lodge, near Farnham, and also in experimental areas in many forests through England, Scotland and Wales. Expenditure was £129,938, as compared with £114,058 in the previous year (for details see Appendix 7, page 53).

During the year the installation of a mains supply of electricity was completed and a constant low temperature room constructed at the Research Station.

Outlines of the work undertaken during the year are given in the succeeding portion of this Report. These are necessarily brief, and fuller accounts of research projects will be found in the Reports on Forest Research\*, the first of which, covering the year from April, 1948, to March, 1949, was published during the year under review.

During the year the Research Station was visited by 127 scientists, many of whom were from abroad, including visitors from Australia, British Guiana, Canada, Ceylon, China, Denmark, France, Gold Coast, Holland, India, Kenya, Malaya, Nigeria, Norway, Sweden, Trinidad, Uganda, and the United States of America.

#### SILVICULTURE

Work has continued on chemical staining methods for testing the germination of tree seed, and systematic work on the best conditions for the storage of seed of different species has been commenced.

In nurseries on agricultural soils, work was continued on the effect of partial soil sterilisation. The residual effect of sterilisation in the previous year was found to be marked. Studies in the technique of steam sterilisation were continued in an endeavour to find more efficient and cheaper ways of carrying out this process. In formalin sterilisation, studies of different methods of application to increase the effectiveness of this method gave promising results. A wide range of experiments in the use of fertilisers and composts has been continued and as a result further recommendations have been made regarding nursery manuring practice. Work on weed control in nurseries by means of selective weed killers was continued, preliminary trials with aromatic oils giving promising results.

Much experimental work has already been carried out on upland heaths and peat-clad soils, two of the most important types of afforestable land in our hill country. These experiments have been assessed during the past few years and the results are now being summarised for publication. Current research is directed towards determining the long-term effects of increased drainage, especially as regards the stability of the crop.

New trial-plantations of various species, pure and in mixture, have been made in areas hitherto regarded as unplantable, such as some high-lying heather moors in the Border forests and certain peatlands in Caithness and Sutherland.

Work on methods of rehabilitating derelict broadleaved woodlands continues and a specialist officer is giving his whole time to this problem. At Alton Forest, Hampshire, a fairly typical derelict woodland on chalk has been taken over as a demonstration area, stock mapped in detail, the types of growth and condition of the crop classified and a detailed plan of treatment drawn up. A forest area on clay will be similarly treated. Two of the main factors in derelict woodland work are the cost of clearing coppice and other regrowth before planting, and the problem of keeping regrowth in check until the planted crop is established. Experiments are in progress on partial clearance by strips and by groups, and on the control of regrowth by the use of poison. Hazel coppice, blackthorn, rhododendron and inferior ash coppice have been treated with a large number of chemicals, the most promising of which are ammonium sulphamate and sodium arsenite.

Assessments have been made of a number of plantation experiments testing different races or "provenances" of a species. In a series of beech provenance

---

\* Report on Forest Research for year ending March, 1949. H.M.S.O. (1s. 9d.).



experiments planted in 1942 in several localities, a Dutch origin and a strain from West Dean (Sussex) lead in vigour, and show a lower percentage of forking than the other origins used.

A set of 86 experiments on the spacing of conifers in plantations, which were laid down mainly in 1935/36, were assessed and their future treatment determined. The spacings used were 3 ft., 4½ ft., 6 ft. and 8 ft., and the trials cover all our commonly planted species. The results showed that variation in spacing had no significant effect on height growth. Percentage survivals were similar in all spacings for a given site, but the denser plantings of European larch suffered more severely from die-back. Crown spread, branch thickness and stem diameter are all factors which increase with wider spacing, while stem form, length of clear bole and taper improve in the closer spacings.

#### STUDIES OF GROWTH AND YIELD

During the year 37 additional sample plots were established for the purpose of collecting data for the compilation of yield tables. This brings the total number of sample plots to 407. Table 29 below shows their distribution by countries.

PERMANENT SAMPLE PLOTS  
Year ended 30th September, 1950

Table 29

	Great Britain	England	Scotland	Wales
In being on 1st October, 1949 ... ..	407	183	161	63
New plots established during the year ...	37	17	20	—
Plots abandoned (felled, blown, etc.) during the year ... ..	3	—	3	—
In being on 30th September, 1950 ... ..	441	200	178	63
Remeasured during the year ... ..	117	60	48	9

Compilation of volume tables for our more important species has proceeded, and those for oak, beech, birch, Scots pine and European larch were prepared for publication during the year. In connection with the Census of Woodlands, field and computation work for estimating the standing volume and increment were completed. From a study of the increment of "free-grown" oak, a simple relationship between crown diameter and breast height stem diameter was established, and a rough yield table for free-grown oak was constructed. Methods of sampling thinnings were also investigated and recommendations issued. Correlations between current height growth and volume production in conifers were worked out for different height classes for the purpose of estimating production per acre.

#### FOREST GENETICS

The object of forest genetics is to study the types of trees used for afforestation in this country with a view to improving the quality of the strains employed. Work is proceeding at present on Corsican pine, Scots pine, European larch, Sitka spruce and beech. In Corsican pine a number of seed stands have been selected, and 21 single trees marked down for propagation and comparative testing. Means of stimulating seed production in young and middle aged plantations are being investigated. Grafting methods for propagating elite material have been worked out and have been fairly successful with this difficult species. Elite mother trees of Scots pine have been selected, and a start made with propagation on suitable root stocks.

Material from 20 very fine elite trees of European larch from old Scottish plantations has been propagated and the formation of an experimental "seed orchard" of this species is now projected.

Shoots for propagation have been collected from late flushing individuals of Sitka spruce which are less liable to damage from spring frosts, also material from trees that exhibit relative immunity to attacks by the Green Spruce Aphids.

In beech, sowings of strains collected in the 1948 seed year indicated that vigorous provenances could be differentiated in the nursery bed. Differences in branching types and in the degree of forking were apparent, but need to be observed for some years before it is certain to what extent they are characteristic of the different strains.

#### FOREST ECOLOGY

Ecological work on beech has continued. One point of interest that emerges is that soil acidity is not in itself a limiting factor, as good beech can be grown on soils ranging from very acid to almost neutral.

#### FOREST PATHOLOGY

Observations and investigations are continuing on some twenty diseases of forest trees in this country. Experiments show that the spread of *Fomes annosus* from the stumps of freshly felled pine trees, a trouble encountered on certain soil types in East Anglia, can be largely controlled by coating the stumps with a mixture of tar and creosote.

A serious outbreak of *Melampsora pinitorqua* on Scots pine has pointed to the inadvisability of growing this species where aspen, the alternative host to the fungus, is present. Work continues on the propagation of clones of Weymouth pine reported to be resistant to blister rust.

Concern has arisen regarding the dying of groups of Sitka spruce in various parts of the country. In view of the importance of Sitka spruce, and the large scale on which it is being planted, intensive study of this type of dying has been initiated; no definite pathogens have so far been isolated. First trials of *Thuja* sowings in isolated nurseries indicate that seedlings free from *Keithia* can be raised, though how long such nurseries can be kept free from the disease remains to be seen. Poplar trials have been continued and extended. The number of clones now under observation is 216. The testing of varieties for canker resistance has continued, and is bringing to light some promising disease-resistant varieties. Sycamore Disease, which suddenly appeared recently at Wanstead, Essex, has been the subject of intensive survey, and is now found also at Plumstead in south-east London, at Staines in Middlesex, and at a point near Guildford in Surrey. The disease does not appear to be serious except in the vicinity of London.

#### FOREST ENTOMOLOGY

Work has largely concentrated on a survey of sawfly pests, in particular on the Large Larch Sawfly (*Pristiphora erichsonii*), which has started to appear in roughly the same localities as in the serious epidemic of 1906-1910. A study of the parasites occurring in the present outbreaks is also being made. Four other larch sawflies, and a number of spruce sawflies, were also studied, as well as the bark beetle *Polygraphus polygraphus*, which attacks spruce trees, particularly those already attacked by the sawfly *Pristiphora subarctica*. Sawfly parasites have been imported from Canada, bred up at Alice Holt and released in the forest.

Aphid pests of spruce have also been studied, and it appears that where serious damage occurs, the Green Spruce Aphis (*Neomyzaphis abietina*) is usually accompanied by a number of other species of aphid which intensify the attack.

#### MACHINERY RESEARCH

A Headquarters Mechanical Development Committee was formed in September 1949, when a programme of investigations into the development of mechanical methods in forestry was drawn up. One important problem is connected with the extraction of thinnings, where the difficulties are largely due to the small volume per acre to be removed and the need for equipment which is easily transportable from one site to another. A light-weight power-operated cableway has been devised, and a chute made of aluminium sections for extracting thinnings on sloping ground is also on trial. Investigations are proceeding into the use of various types of 'sulkies' (wheeled logging arches) and of small tractors for tushing.

Tests carried out with a Swedish hydraulic loader fitted to a lorry show that this type of equipment may get over difficulties of loading large thinnings on to road vehicles.

Power-operated one-man saws have been tested, but they are not considered to show an advantage over hand felling on trees below ten inches diameter or when selection felling means moving some distance from one tree to another. Other tools investigated include mechanical saws for pruning trees, and machines for removing bark from poles. Machines for seed sowing and for root pruning of nursery stock are being developed.

Forest ploughs in use are under constant study and modifications are made as experience shows them to be necessary. Good results are being obtained using a special kind of 'tine' plough for the preparation of certain types of ground for planting.

#### ADVISORY COMMITTEE ON FOREST RESEARCH

This Committee met at Notherwood House in the New Forest for its annual review of the programme of research work. During the meeting visits were paid to experiments in derelict woodlands at Gardiner Forest and to nursery experiments at Wareham and Ringwood nurseries in Dorset.

#### UTILISATION

Close liaison with the Director of the Forest Products Research Laboratory and his staff has been maintained.

#### GRANTS TO UNIVERSITIES AND OTHER INSTITUTIONS

The Commissioners have continued to make grants for research work on special forestry problems of a fundamental scientific nature to be carried out at the Forestry Departments of the Universities and other institutions qualified to undertake such work. The grants made during the year included: £612 to Aberdeen University for studies on the morphology of variations in European larch, Douglas fir and Scots pine; £1,448 to Dr. I. Levisohn, Bedford College, University of London, for soil mycological investigations in relation to forest trees, and £1,830 to the Rothamsted Experimental Station for research on the nutrition of trees in forest nurseries. For the furtherance of research on forest soils, grants totalling £3,785 were made to the Macaulay Institute for Soil Research, Aberdeen, the Rothamsted Experimental Station, and the Imperial Forestry Institute, Oxford. The researches being undertaken at these centres include studies of the changes which take place in soils after afforestation, both from the biological and the physico-chemical aspects.

## Publications

Of the eight new items published during the year, four were additions to existing series, while four represented new departures. The new items comprised: The *Report on Forest Research for the Year ended March, 1949*,\* and the first three numbers of a new series entitled *Forest Records*. The *Report on Forest Research* gives details of the work of the Commission's Research Branch, and also of investigations undertaken by Universities and other institutions at the request of the Commissioners. *Forest Records* publish the results of current research work as these become available. The following were issued during the year:—Record No. 1: *Revised Yield Tables for Japanese Larch in Great Britain*†; Record No. 2: *The Raising of Aspen from Seed*‡; Record No. 3: *Cambial Injuries in a Pruned stand of Norway Spruce*.§

In the existing range of publications, the series of illustrated booklets entitled *Britain's Forests* was augmented by three booklets dealing respectively with *Culbin Forest*§ in Morayshire, *Rheola Forest*§ in Glamorgan, and *Kielder Forest*§ in Northumberland. A *National Forest Park Guide*, covering forests in and around *Glen Trool*|| in the Galloway Uplands of South-west Scotland, was also issued.

The continuing public demand for the Department's publications was reflected in a heavy programme of revision and reprinting. In all, twenty-seven items were re-issued during the year, four of them more than once. A second edition of Booklet 2, *The Dedication of Woodlands*,¶ including the revised deeds, was also published.

## Publicity and Public Relations

The public have been kept informed of the work of the Forestry Commissioners through the good offices of the Press and the B.B.C. and also by means of publications issued by the Commissioners and by exhibits at agricultural shows, museums, libraries and elsewhere.

Nearly 30 notices and statements relating to the Commissioners' work were distributed and, as in past years, facilities were given for representatives of the Press to see the work going on in the Commissioners' forests. Among the forests visited were the New Forest and Kielder in England; Culbin and Ae in Scotland; and Crychan, Llanover and Margam forests in Wales. In addition, a visit was made to Glen Trool National Forest Park, in South Scotland.

A number of special forestry broadcasts was arranged by the B.B.C., notably a feature series on the Commissioners' operations in the forests of Thetford Chase, Kielder, Rheola, the New Forest, and forests in the Lake District.

Speakers on forestry subjects were provided for meetings of Youth Clubs and other organisations; some 450 lectures in all were given, of which nearly 100 were undertaken by officers of the Forestry Commission, the others being given by speakers provided by the Central Office of Information.

Leaflets bringing to the notice of the public the dangers of forest fires were distributed at agricultural shows and at lectures, and through other channels.

---

\* H.M.S.O. Price 1s. 9d.

† H.M.S.O. Price 6d. each.

‡ H.M.S.O. Price 9d.

§ H.M.S.O. Britain's Forests Series: Culbin, Kielder and Rheola. Price 6d. each.

|| H.M.S.O. Price 3s. 0d.

¶ H.M.S.O. Price 1s. 6d.

A pictorial display based on the results of the recent Census of Woodlands, was exhibited in the House of Commons. Another display, illustrating various aspects of forestry work, was put on view at the Parish Councils' Conference and also at the Housing Centre in London, at Bristol Museum, and at the Bridewell Museum in Norwich. A forestry exhibit was also arranged at the Royal Scottish Museum in Edinburgh. This exhibit was visited by many organised parties of school children and also attracted considerable notice from the Press and the general public.

Many requests for information and display material were received from individual teachers and educational establishments and numerous inquiries dealt with.

### National Forest Parks

The continued public interest in the six National Forest Parks, which occupy 237,750 acres and include some of the finest scenery in Britain, has been well shown by a marked increase in the number of overnight stays recorded at the several official camping grounds.

Details are as follows:—

<i>Forest Park</i>	<i>Number of overnight stays at Camping Grounds</i>
Dean ...	1,408
Hardknott	No site
Argyll ...	22,767
Glen More	15,714
Glen Trool	1,529
Snowdonia	1,273
Total	<u>42,691</u>

The total recorded in the previous year was 18,775. These figures give only a general indication of the popularity of the Parks, for many visitors stay at Youth Hostels and hotels in or near the Forest Parks, or visit them on day excursions.

An interesting development at the Glen More National Forest Park, which lies in the Cairngorm Mountains of Inverness-shire, has been its growing use as a training centre for mountaineering and for winter sports.

Illustrated guide books, published by the Commissioners, are now available for all six Parks, the latest being the Guide to the Glen Trool National Forest Park\*, published in the year under review.

---

\* H.M.S.O. 3s. 0d.

### Staff

The Commissioners desire to acknowledge the efficient services of their staff at all levels.

(Signed) ROBINSON (*Chairman*)  
RADNOR  
J. M. BANNERMAN  
R. C. G. COTTERELL  
LLOYD O. OWEN  
J. E. HAMILTON  
JOHN STIRLING  
W. H. VAUGHAN  
JOHN WALTON

H. A. TURNER, *Secretary*,  
25, Savile Row,  
London, W.1

# APPENDICES

## Appendix I

### PAYMENTS BY HEADS OF ACCOUNT, AND RECEIPTS

£

Year ending 30th September	Payments											Receipts	Net Payments
	Total (1)	Salaries Wages and Allow- ances (2)	Head- quarters Charges (3)	Charges of Directors of Forestry (4)	Charges of Conser- vators (5)	Forestry Opera- tions (6)	Private Forestry (7)	Education (8)	Research and Experi- ment (9)	Special Services (10)	Forest Workers Holdings (11)	(12)	(13)
Grand Total													
1920-50 ...	45,692,314	3,691,673	198,695	249,520	654,568	36,555,411	862,205	1,226,651	434,302	805,512	1,013,777	11,634,862	34,057,452
1920-29 ...	4,502,018	494,157	22,676	30,386	74,434	3,118,837	299,600	76,004	36,927	23,342	325,455	851,484	3,650,534
1930-39 ...	7,926,093	714,343	53,003	49,485	107,251	6,232,917	128,653	73,538	84,916	13,681	468,306	1,821,852	6,104,241
1940-45 ...	6,927,334	550,592	31,164	36,705	91,559	5,976,639	69,079	39,813	58,463	1,471	71,849	3,784,038	3,143,296
1946 ...	1,937,614	164,645	7,678	10,107	22,707	1,637,845	7,891	48,646	17,884	875	19,336	562,504	1,375,110
1947 ...	3,870,060	315,582	10,701	20,112	67,250	2,886,341	48,544	286,438	34,655	174,027	26,410	659,062	3,210,998
1948 ...	6,622,524	429,552	20,381	34,322	96,532	5,010,696	75,204	326,151	52,216	545,545	31,925	1,069,749	5,552,775
1949 ...	6,881,257	480,677	25,511	29,646	89,452	5,798,466	87,618	231,001	68,802	35,457	34,627	1,350,425	5,530,832
1950 ...	7,025,414	542,125	27,581	38,557	105,383	5,893,670	145,616	145,060	80,439	11,114	35,869	1,535,748	5,489,666

## Appendix 2

## EXPENDITURE AND INCOME

£

Year ending 30th September	Expenditure										Income					Net Expendi- ture
	Total (1)	Forestry Opera- tions (Appendix 3) (2)	Private Forestry (3)	Education (Appendix 6) (4)	Research and Ex- periment (Appendix 7) (5)	Special Services (Appendix 8) (6)	Forest Workers Holdings (Appendix 5) (7)	Total (8)	Forestry Opera- tions (Appendix 3) (9)	Education (Appendix 6) (10)	Forest Workers Holdings (Appendix 5) (11)	Miscel- laneous (12)	Net Expendi- ture (13)			
Grand Total	46,596,447	40,932,499	1,153,260	1,457,690	754,204	1,037,552	1,261,242	12,506,543	11,667,997	373,987	438,438	26,121	34,089,904			
Percentage ...	100	87.9	2.5	3.1	1.6	2.2	2.7	100	93.3	3.0	3.5	0.2	—			
1920-29	4,485,649	3,512,577	340,927	101,313	79,650	61,299	389,883	916,559	882,108	2,427	27,515	4,509	3,569,090			
1930-39	8,070,155	7,056,580	166,767	97,998	140,245	42,694	565,871	1,943,543	1,770,014	443	168,856	4,230	6,126,612			
1940-45	7,051,637	6,680,667	96,557	51,853	99,078	7,888	115,594	3,972,935	3,839,708	225	127,567	5,435	3,078,702			
1946	1,984,811	1,821,628	33,943	66,565	33,911	3,387	25,377	535,117	499,642	12,465	22,291	719	1,449,694			
1947	4,174,509	3,415,770	104,911	331,087	65,268	222,241	35,232	745,991	629,009	94,284	21,803	895	3,428,518			
1948	6,752,392	5,549,723	98,839	363,017	92,056	608,587	40,170	1,257,814	1,125,861	108,495	22,131	1,327	5,494,578			
1949	6,853,245	6,264,861	116,968	268,625	114,058	46,411	42,322	1,456,984	1,333,508	97,306	22,946	3,224	5,396,261			
1950	7,224,049	6,630,693	194,348	177,232	129,938	45,045	46,793	1,677,600	1,588,147	58,342	25,329	5,782	5,546,449			



## FORESTRY OPERATIONS: EXPENDITURE AND INCOME

## Appendix 3

Year ending 30th September	Expenditure (Appendix 2, Column 2)										Income (Appendix 2, Column 9)					Net Expenditure (17)	
	Total (1)	Overhead Charges (2)	Superior Supervision (3)	Local Supervision (4)	Acquisition of Land, etc. (5)	Cultural Operations (See Appendix 4) (6)	Preparation and Sale of Produce (7)	Roads (8)	Buildings (9)	Stores (10)	Miscellaneous (11)	Total (12)	Sales of Land and Buildings (13)	Rents and Royalties (14)	Forest Produce (15)		Other (16)
Grand Total	40,932,499	1,539,709	1,942,209	2,781,917	3,911,684	16,063,148	3,494,661	1,883,346	2,911,196	2,587,218	3,817,411	11,667,997	312,068	2,147,878	8,073,288	1,134,763	29,264,502
1920-50...																	
Percentage	100	3.8	4.8	6.8	9.6	39.2	8.5	4.6	7.1	6.3	9.3	100	2.7	18.4	69.2	9.7	—
1920-29...	3,512,577	192,997	201,122	174,130	787,509	1,510,801	1,118,853	37,502	77,986	41,733	369,944	882,108	78,784	274,091	406,594	122,639	2,630,469
1930-39...	7,056,580	332,060	352,049	493,661	1,534,471	3,071,019	362,395	61,872	184,981	86,845	577,227	1,770,014	76,484	791,032	699,094	203,404	5,286,566
1940-45...	6,680,667	254,471	285,761	610,303	699,647	3,223,256	499,406	70,040	110,652	211,243	715,688	3,839,708	130,750	559,603	2,893,709	255,646	2,840,959
1946 ...	1,821,628	74,069	77,566	175,761	144,726	794,133	162,414	36,979	59,334	83,127	213,519	499,642	368	93,883	349,365	54,026	1,321,986
1947 ...	3,415,770	121,225	181,096	248,404	78,648	1,351,964	288,655	208,194	165,301	462,808	309,475	629,009	759	94,346	436,111	97,793	2,786,761
1948 ...	5,549,723	159,773	234,174	296,817	136,850	1,967,912	637,370	484,291	658,869	492,129	481,538	1,125,861	8,924	101,667	905,315	109,955	4,423,862
1949 ...	6,264,861	196,906	283,352	368,906	262,234	2,070,139	701,487	539,656	762,595	545,699	533,887	1,333,508	3,781	108,414	1,089,888	131,425	4,931,353
1950 ...	6,630,693	208,208	327,089	413,735	267,599	2,073,924	724,081	444,812	891,478	663,634	616,133	1,588,147	12,218	122,842	1,293,212	159,875	5,042,546

CULTURAL OPERATIONS: EXPENDITURE

(Appendix 3, Col. 6)

Appendix 4

£

Year ending 30th September	Grand Total  (1)	Plantations				Nurseries  (6)
		Total (2)	Prepara- tory work and Planting (3)	Establish- ment and Main- tenance (4)	Forest Protec- tion (5)	
Grand Total, 1920- 1950 ... ..	16,063,148	11,838,136	4,841,726	4,886,557	2,109,853	4,225,012
<i>Percentage of Column 2 ...</i>	—	100	40·9	41·3	17·8	—
<i>Percentage of Column 1 ...</i>	100	73·7	30·2	30·4	13·1	26·3
1920-29 ... ..	1,510,801	1,029,528	638,503	295,201	95,824	481,273
1930-39 ... ..	3,071,019	2,346,887	1,053,327	916,427	377,133	724,132
1940-45 ... ..	3,223,256	2,326,965	625,220	1,139,353	562,392	896,291
1946 ... ..	794,133	560,267	144,098	293,692	122,477	233,866
1947 ... ..	1,351,964	988,258	393,787	405,455	189,016	363,706
1948 ... ..	1,967,912	1,469,450	586,132	634,167	249,151	498,462
1949 ... ..	2,070,139	1,552,022	672,502	611,185	268,335	518,117
1950 ... ..	2,073,924	1,564,759	728,157	591,077	245,525	509,165

Year ending 30th September	Expenditure (Appendix 2, Column 7)										Income (Appendix 2, Column 12)			Net Expendi- ture
	Total (1)	Superior Super- vision and Overhead Charges (2)	Purchase and Rent of Land and Buildings (3)	Buildings			Fencing, Drain- age, etc. (7)	Miscel- laneous (8)	Total (9)	Rents (10)	Other (11)			
				New (4)	Adapta- tions (5)	Repairs (6)								
Grand Total 1920-50.	1,261,242	207,646	210,010	449,813	100,875	197,142	57,940	37,816	438,438	434,126	4,312	822,804		
Percentage ...	100	16.5	16.6	35.7	8.0	15.6	4.6	3.0	100	99.0	1.0	—		
1920-29 ...	389,883	35,894	103,940	192,184	32,302	3,882	17,561	4,120	27,515	26,261	1,254	362,368		
1930-39 ...	565,871	94,399	108,894	234,824	43,830	46,341	27,967	9,616	168,856	167,966	890	397,015		
1940-45 ...	115,594	42,133	8,659(Cr.)	18,443	7,506	42,094	5,427	8,650	127,567	127,234	333	11,973(Cr.)		
1946 ...	25,377	5,573	1,117	945	436	14,110	1,100	2,096	22,291	21,532	759	3,086		
1947 ...	35,232	7,247	829	998	5,334	17,147	649	3,028	21,803	21,360	443	13,429		
1948 ...	40,170	6,902	1,739	694	2,491	23,164	1,491	3,689	22,131	22,124	7	18,039		
1949 ...	42,322	7,001	1,087	420	2,953	25,940	1,620	3,301	22,946	22,529	417	19,376		
1950 ...	46,793	8,497	1,063	1,305	6,023	24,464	2,125	3,316	25,329	25,120	209	21,464		

Year ending 30th September	Expenditure (Appendix 2, Column 4)										Income (Appendix 2, Column 10)	Net Expendi- ture
	Total (1)	Superior Supervision and Overhead Charges (2)	Salaries and Expenses (3)	Forester Schools and Short Courses			Forest Workers Training Scheme		Grants to Institutions (9)			
				Instructors Salaries and Expenses (4)	Allowances to Appren- tices (5)	Rent, Stores, Fuel, Light, etc. (6)	Allowances to Trainees (7)	Unkeep of Training Centres (8)				
Grand Total 1920-50.	1,457,690	88,842	42,867	99,858	170,050	242,653	392,450	281,107	139,863	373,987	1,083,703	
Percentage ...	100	6.1	2.9	6.9	11.7	16.6	26.9	19.3	9.6	—	—	
1920-29 ...	101,313	13,125	—	15,401	21,709	20,387	—	—	30,691	2,427	98,886	
1930-39 ...	97,998	12,184	—	10,848	17,682	14,638	—	—	42,646	443	97,555	
1940-45 ...	51,853	6,331	—	6,242	12,688	7,700	—	—	18,892	225	51,628	
1946 ...	66,565	6,751	—	3,709	2,531	4,706	34,148	10,204	4,516	12,465	54,100	
1947 ...	331,087	13,589	6,113	10,867	15,135	45,678	145,634	86,328	7,743	94,284	236,803	
1948 ...	363,017	16,103	12,076	16,176	33,946	63,788	110,252	100,989	9,687	108,495	254,522	
1949 ...	268,625	11,200	12,632	17,713	33,445	43,012	75,965	61,456	13,202	97,306	171,319	
1950 ...	177,232	9,559	12,046	18,902	32,914	42,744	26,451	22,130	12,486	58,342	118,890	

RESEARCH AND EXPERIMENT: EXPENDITURE AND INCOME

Appendix 7

£

Year ending 30th September	Expenditure (Appendix 2, Column 5)					Income	Net Expendi- ture
	Total	Superior Supervision and Overhead Charges	Salaries and Expenses	Labour, Stores, etc.	Grants to Institu- tions		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Grand Total 1920-50 ...	754,204	63,953	339,945	275,069	75,237	9,006	745,198
Percentage ...	100	8.5	45.0	36.5	10.0	—	—
1920-29 ...	79,650	13,699	38,458	20,230	7,263	1,058	78,592
1930-39 ...	140,245	14,584	55,042	47,030	23,589	2,540	137,705
1940-45 ...	99,078	6,329	47,056	33,768	11,925	1,791	97,287
1946 ...	33,911	2,411	16,892	12,626	1,982	329	33,582
1947 ...	65,268	4,530	30,140	26,231	4,367	217	65,051
1948 ...	92,056	6,902	40,422	35,623	9,109	629	91,427
1949 ...	114,058	7,001	55,244	44,027	7,786	1,248	112,810
1950 ...	129,938	8,497	56,691	55,534	9,216	1,194	128,744

SPECIAL SERVICES: EXPENDITURE AND INCOME

Appendix 8

£

Year ending 30th September	Expenditure (Appendix 2, Column 6)						Income	Net Expendi- ture
	Total	Superior Super- vision and Overhead Charges	Consul- tative Committee Expenses	Publica- tions	Special Enquiries	Relief of Un- employ- ment		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Grand Total 1920-50	1,037,552	123,072	677	11,453	121,357	780,993	467	1,037,085
Percentage	100	11.8	0.1	1.1	11.7	75.3	—	—
1920-29 ...	61,299	26,585	523	1,995	12,368	19,828	347	60,952
1930-39 ...	42,694	28,698	145	1,279	12,572	—	33	42,661
1940-45 ...	7,888	6,329	9	2	1,548	—	6	7,882
1946 ...	3,387	2,411	—	—	976	—	12	3,375
1947 ...	222,241	6,341	—	2,507	17,613	195,780	25	222,216
1948 ...	608,587	6,119	—	1,400	35,683	565,385	19	608,568
1949 ...	46,411	12,601	—	1,860	31,950	—	11	46,400
1950 ...	45,045	33,988	—	2,410	8,647	—	14	45,031

## Appendix 9

## PLANTATIONS MADE DURING THE YEAR ENDED

Country or Conservancy	Area Planted (Acres)						Total
	Total		Afforested		Re-Afforested		
	Conifers	Broad- leaved	Conifers	Broad- leaved	Conifers	Broad- leaved	
GREAT BRITAIN ...	49,564	4,173	36,704	651	12,860	3,522	108,692
ENGLAND: ...	14,162	3,566	9,442	540	4,720	3,026	39,849
Conservancy:							
North West ...	2,809	285	1,569	56	1,240	229	5,841
North East ...	7,405	61	6,769	45	636	16	13,876
East ...	1,407	847	489	127	918	720	6,548
South East ...	802	1,194	101	235	701	959	5,154
South West ...	1,124	614	447	40	677	574	4,735
New Forest ...	397	99	45	37	352	62	1,686
Dean Forest ...	218	466	22	—	196	466	2,009
SCOTLAND: ...	24,311	34	17,983	11	6,328	23	46,208
Conservancy:							
North ...	5,118	1	2,285	1	2,833	—	10,819
East ...	6,951	18	4,206	3	2,745	15	13,953
South ...	7,513	8	7,091	3	422	5	13,435
West ...	4,729	7	4,401	4	328	3	8,001
WALES: ...	11,091	573	9,279	100	1,812	473	22,635
Conservancy:							
North ...	5,812	260	5,131	29	681	231	11,744
South ...	5,279	313	4,148	71	1,131	242	10,891

30th SEPTEMBER, 1950—SUMMARY BY CONSERVANCIES

Species Planted, including Beating Up (Thousands of plants)

Scots Pine	Corsi-can Pine	Euro-pean Larch	Japane-se Larch	Douglas Fir	Norway Spruce	Sitka Spruce	Oak	Beech	Other Species	
									Conifers	Broad leaved
18,558	7,810	855	11,704	2,834	14,450	38,032	4,645	6,458	2,804	542
6,105	5,655	246	2,329	1,464	4,645	8,899	4,092	5,746	288	380
710	962	6	405	311	759	2,054	75	320	48	191
2,662	180	20	1,364	187	2,898	6,151	7	308	59	40
835	2,771	8	23	305	210	—	1,236	1,070	16	74
1,377	269	21	123	314	318	—	267	2,433	11	21
336	867	—	326	90	221	645	875	1,275	85	15
130	578	2	71	257	154	49	133	276	11	25
55	28	189	17	—	85	—	1,499	64	58	14
9,843	724	598	5,078	624	6,813	20,490	72	54	1,888	24
4,379	43	355	1,132	135	1,390	2,963	—	—	420	2
3,772	668	157	2,357	323	1,666	3,890	11	45	1,053	11
991	13	7	1,078	134	2,452	8,649	61	2	44	4
701	—	79	511	32	1,305	4,988	—	7	371	7
2,610	1,431	11	4,297	746	2,992	8,643	481	658	628	138
1,056	1,103	—	1,804	215	1,052	5,420	255	213	538	88
1,554	328	11	2,493	531	1,940	3,223	226	445	90	50

SUMMARY OF SPECIES USED FOR PLANTING AND BEATING UP

Appendix 10

Year ended 30th September 1950

Thousands of plants

SPECIES	GREAT BRITAIN			ENGLAND			SCOTLAND			WALES		
	Total	Planting	Beating up	Total	Planting	Beating up	Total	Planting	Beating up	Total	Planting	Beating up
All Species	108,692	89,597	19,095	39,849	30,053	9,796	46,208	41,032	5,176	22,635	18,512	4,123
Scots Pine	18,558	15,239	3,319	6,105	4,372	1,733	9,843	8,738	1,105	2,610	2,129	481
Corsican Pine	7,810	5,700	2,110	5,655	4,120	1,535	724	562	162	1,431	1,018	413
European Larch	855	700	155	246	199	47	598	495	103	11	6	5
Japanese Larch	11,704	10,189	1,515	2,329	1,916	413	5,078	4,807	271	4,297	3,466	831
Douglas Fir	2,834	1,923	911	1,464	854	610	624	521	103	746	548	198
Norway Spruce	14,450	12,032	2,418	4,645	3,563	1,082	6,813	6,067	746	2,992	2,402	590
Sitka Spruce	38,032	32,978	5,054	8,899	7,573	1,326	20,490	18,026	2,464	8,643	7,379	1,264
Tsuga heterophylla	80	60	20	34	25	9	18	12	6	28	23	5
Thuja plicata	24	18	6	9	7	2	11	9	2	4	2	2
Pinus contorta	1,968	1,745	223	10	7	3	1,570	1,419	151	388	319	69
Hybrid Larch	91	91	—	58	58	—	32	32	—	1	1	—
Lawson Cypress	109	71	38	54	28	26	55	43	12	—	—	—
Picea omorika	1	1	—	1	1	—	—	—	—	—	—	—
Abies grandis	191	178	13	43	32	11	148	146	2	—	—	—
Ash	99	92	7	58	52	6	7	7	—	34	33	1
Beech	6,458	4,473	1,985	5,746	3,862	1,884	54	45	9	658	566	92
Oak	4,645	3,495	1,150	4,092	3,086	1,006	72	36	36	481	373	108
Sycamore	54	45	9	27	19	8	9	9	—	18	17	1
Cherry	15	8	7	15	8	7	—	—	—	—	—	—
Other Conifers	340	262	78	79	64	15	54	50	4	207	148	59
Other Broadleaved	374	297	77	280	207	73	8	8	—	86	82	4



SUMMARY AREA STATEMENT OF LAND USE: BY CONSERVANCIES

Appendix 11

At 30th September, 1950

Acres

Country or Conservancy	Total	Planted during year ended 30th September, 1950		Under Plantations	Provisional Allocation of Other Land	
		Aforested	Re-afforested		Plantable	Agricultural, Unplantable, &c.
GREAT BRITAIN ... ..	1,668,447	37,355	16,382	673,488	330,616	664,343
ENGLAND: ... ..	557,166	9,982	7,746	302,218	116,290	138,658
North West Conservancy	90,402	1,625	1,469	46,626	23,735	20,041
North East Conservancy	174,795	6,814	652	71,144	51,984	51,667
East Conservancy	95,669	616	1,638	65,821	11,456	18,392
South East Conservancy	42,304	336	1,660	28,122	12,277	1,905
South West Conservancy	54,580	487	1,251	34,247	14,541	5,792
New Forest	74,197	82	414	35,869	939	37,389
Dean Forest	25,219	22	662	20,389	1,358	3,472
SCOTLAND: ... ..	884,114	17,994	6,351	256,497	161,755	465,862
North Conservancy	282,536	2,286	2,833	65,547	31,162	185,827
East Conservancy	161,106	4,209	2,760	77,881	44,507	38,718
South Conservancy	207,374	7,094	427	48,232	52,035	107,107
West Conservancy	233,098	4,405	331	64,837	34,051	134,210
WALES: ... ..	227,167	9,379	2,285	114,773	52,571	59,823
North Conservancy	126,960	5,160	912	59,594	28,086	39,280
South Conservancy	100,207	4,219	1,373	55,179	24,485	20,543

AREA STATEMENT OF LAND USE: BY FORESTS—ENGLAND

Appendix 12

At 30th September, 1950

Acres

Forest	Total	Planted during year ended 30th September, 1950		Under Plantations	Provisional Allocation of Other Land	
		Aforested	Re-afforested		Plantable	Agricultural, Unplantable, &c.
NORTH WEST CONSERVANCY: TOTAL ... ..	90,402	1,625	1,470	46,626	23,735	20,041
1. Delamere ... ..	1,934	—	97	1,895	1	38
2. Thornthwaite ... ..	4,875	126	—	3,485	388	1,002
3. Cannock Chase ... ..	6,312	—	123	5,399	862	51
4. Mortimer ... ..	7,422	—	257	6,139	955	328
5. Walcot ... ..	1,849	129	46	1,740	91	18
6. Clipstone ... ..	9,615	80	166	6,205	3,131	279
7. Ennerdale ... ..	8,405	188	—	3,036	346	5,023
8. Hope ... ..	2,986	2	15	643	1,198	1,145
9. Bawtry ... ..	583	—	6	523	9	51
10. Sherwood ... ..	2,673	49	20	2,278	328	67
11. Kershope ... ..	12,504	493	—	8,213	1,734	2,557
12. Hardknott ... ..	8,011	156	—	990	1,342	5,679
13. Grizedale ... ..	5,807	29	252	3,037	1,794	976
14. Greystoke ... ..	1,658	—	86	1,418	—	240
15. Cotgrave ... ..	370	25	22	242	128	—
16. Dalton ... ..	452	—	81	148	216	88
17. Kinver ... ..	826	—	117	260	536	30
18. Gisburn ... ..	2,674	243	—	495	2,110	69
19. Long Mynd ... ..	679	105	—	105	312	262
20. Swynnerton ... ..	806	—	182	351	455	—
21. Bagot ... ..	968	—	—	—	968	—
22. Longtown ... ..	84	—	—	—	—	84
23. Spadeadam ... ..	8,909	—	—	24	6,831	2,054

Appendix 12—continued

Forest	Total	Planted during year ended 30th September, 1950		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-afforested		Plantable	Agricultural, Unplantable, &c.
<b>NORTH EAST CONSERVANCY:</b>						
TOTAL ... ..	174,795	6,814	652	71,144	51,984	51,667
1. Chopwell ... ..	816	—	40	759	38	19
2. Allerston ... ..	13,046	171	83	9,839	1,923	1,284
3. Rothbury ... ..	1,889	101	112	1,317	411	161
4. Selby ... ..	795	—	—	755	39	1
5. Kielder ... ..	74,373	3,379	321	27,467	21,206	25,700
6. Hamsterley ... ..	5,510	664	—	4,552	542	416
7. Ampleforth ... ..	3,423	—	49	1,789	1,373	261
8. Rosedale ... ..	10,598	140	21	2,778	4,686	3,134
9. Harwood ... ..	2,109	—	4	1,449	478	182
10. Slaley ... ..	1,480	—	—	1,252	—	228
11. Arkengarthdale ... ..	1,340	10	—	1,074	47	219
12. Redesdale ... ..	17,627	1,080	—	7,824	5,185	4,618
13. Langdale ... ..	10,816	288	22	1,893	1,550	7,373
14. Widehaugh ... ..	70	—	—	—	—	70
15. Warke ... ..	27,719	945	—	7,947	12,125	7,647
16. Scardale ... ..	840	24	—	336	212	292
17. York ... ..	413	12	—	70	342	1
18. Cleveland ... ..	855	—	—	43	803	9
19. Wharnccliffe ... ..	1,076	—	—	—	1,024	52
<b>EAST CONSERVANCY:</b>						
TOTAL ... ..	95,669	615	1,639	65,821	11,456	18,392
1. Hazelborough ... ..	2,453	—	63	1,826	258	369
2. Salcey ... ..	1,279	—	13	1,195	54	30
3. Amphill ... ..	452	—	9	368	3	81
4. Rendlesham ... ..	4,660	—	8	3,597	74	989
5. Rockingham ... ..	5,148	22	49	4,231	320	597
6. Swaffham ... ..	3,810	—	18	3,163	51	596
7. Thetford Chase ... ..	48,362	138	510	32,805	2,957	12,600
8. Bourne ... ..	3,180	12	79	1,706	953	521
9. Laughton ... ..	2,144	—	6	2,066	20	58
10. Swanton ... ..	1,651	—	62	1,256	159	236
11. Dunwich ... ..	911	—	—	708	173	30
12. Yardley Chase... ..	2,115	—	25	1,394	24	697
13. Bardney ... ..	2,847	52	202	2,044	675	128
14. The King's Forest ... ..	5,932	—	156	2,984	2,853	95
15. Wigsley... ..	1,801	—	151	807	652	342
16. Willingham ... ..	1,903	242	—	1,261	547	95
17. Wendover ... ..	814	—	52	682	77	55
18. Hevingham ... ..	229	—	37	149	61	19
19. Shouldham ... ..	956	78	25	487	396	73
20. Watlington ... ..	306	—	13	272	13	21
21. Bramfield ... ..	541	—	44	89	432	20
22. Burwell ... ..	461	—	60	60	401	—
23. Gaywood ... ..	132	52	—	49	75	8
24. Tunstall ... ..	3,374	19	57	2,622	25	727
25. Walden ... ..	208	—	—	—	203	5
<b>SOUTH EAST CONSERVANCY:</b>						
TOTAL ... ..	42,304	336	1,660	28,122	12,277	1,905
1. Alice Holt ... ..	2,142	—	39	1,884	42	216
2. Bere ... ..	1,443	—	—	1,414	—	29
3. Woolmer ... ..	2,073	—	—	627	1,426	20
4. Bedgebury ... ..	2,341	—	143	1,924	197	220
5. Bramshill ... ..	4,108	—	158	3,617	390	101
6. Chiddingfold ... ..	2,090	—	25	1,769	267	54
7. Lyminge ... ..	2,496	—	152	2,296	184	16
8. Friston ... ..	1,986	130	2	1,098	872	16

Appendix 12—continued

Forest	Total	Planted during year ended 30th September, 1950		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-afforested		Plantable	Agricultural, Unplantable, &c.
9. Micheldever ... ..	2,141	8	156	1,558	454	129
10. Buriton ... ..	1,732	—	—	1,410	45	277
11. Westbury ... ..	359	—	—	349	—	10
12. Challock ... ..	1,502	—	151	1,295	202	5
13. Goodwood ... ..	2,429	—	172	847	1,582	—
14. Vinehall ... ..	850	—	28	789	44	17
15. Gravetye ... ..	910	—	9	385	18	507
16. Marden ... ..	1,193	135	—	548	645	—
17. Arundel ... ..	2,777	57	65	1,977	734	66
18. Orlestone ... ..	750	—	59	629	119	2
19. Alton ... ..	947	—	133	247	700	—
20. Andover ... ..	1,000	—	149	723	254	23
21. Southwater ... ..	349	6	52	172	177	—
22. Basing ... ..	211	—	44	179	32	—
23. Bishopstoke ... ..	299	—	—	200	99	—
24. Abinger ... ..	1,047	—	48	64	827	156
25. Shipbourne ... ..	238	—	—	26	210	2
26. Crawley ... ..	315	—	—	315	—	—
27. Hemsted ... ..	1,024	—	16	971	14	39
28. Sindon ... ..	1,358	—	59	624	734	—
29. Hursley... ..	2,194	—	—	185	2,009	—
<b>SOUTH WEST CONSERVANCY:</b>						
TOTAL ... ..	54,580	487	1,251	34,247	14,541	5,792
1. Dymock ... ..	1,600	—	—	1,332	199	69
2. Brendon ... ..	2,190	—	—	1,884	—	306
3. Eggesford ... ..	881	—	—	842	20	19
4. Haldon ... ..	3,022	—	—	2,956	17	49
5. Halwill ... ..	4,458	25	58	3,308	479	671
6. Quantock ... ..	2,283	22	26	1,881	49	353
7. Bodmin ... ..	1,492	36	13	929	395	168
8. Haugh ... ..	606	—	—	557	30	19
9. Wyre ... ..	2,396	—	—	2,198	139	59
10. Wilsey Down ... ..	1,183	—	—	879	223	81
11. Bruton ... ..	862	—	25	718	140	4
12. Dartmoor ... ..	2,287	35	38	1,665	—	622
13. Herodsfoot ... ..	668	—	45	253	389	26
14. Westwoods ... ..	1,192	—	68	673	225	294
15. Lydford ... ..	598	—	27	542	14	42
16. Collingbourne ... ..	1,239	—	123	994	235	10
17. Hartland ... ..	2,143	16	—	1,405	131	607
18. Mendip... ..	1,197	22	26	1,044	80	73
19. Savernake ... ..	4,470	—	143	1,422	2,591	457
20. Stanway ... ..	1,017	3	65	243	130	644
21. Braydon ... ..	450	—	25	298	151	1
22. Okehampton ... ..	382	—	—	325	18	39
23. Neroche ... ..	2,130	—	96	529	1,334	267
24. Culmhead ... ..	40	—	—	—	—	40
25. Plym ... ..	1,146	—	85	243	887	16
26. Wareham ... ..	3,967	—	211	3,160	427	380
27. Gardiner ... ..	1,276	—	—	585	686	5
28. Charmouth ... ..	675	18	44	342	292	41
29. Purbeck ... ..	1,469	211	—	272	1,119	78
30. Blandford ... ..	2,093	—	70	116	1,775	202
31. Fernworthy ... ..	1,479	99	—	1,330	142	7
32. Glynn ... ..	2,246	—	63	1,136	972	138
33. Poorstock ... ..	502	—	—	—	502	—
34. Stokeleigh ... ..	489	—	—	177	307	5
35. Erme ... ..	335	—	—	1	334	—
36. Shepton ... ..	117	—	—	8	109	—

Appendix 12—continued

Forest	Total	Planted during year ended 30th September, 1950		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-afforested		Plantable	Agricultural, Unplantable, &c.
<b>NEW FOREST:</b>						
TOTAL ... ..	74,197	82	414	35,869	939	37,389
1. New ... ..	65,155	—	363	28,586	—	36,569
2. Parkhurst ... ..	1,270	—	9	986	65	219
3. Ringwood ... ..	4,455	—	—	3,818	358	279
4. Ferndown ... ..	799	—	36	626	74	99
5. Brightstone ... ..	1,525	70	—	1,091	237	197
6. Combley ... ..	559	—	—	550	—	9
7. Osborne ... ..	133	—	5	133	—	—
8. Shalfleet ... ..	301	12	1	79	205	17
<b>DEAN FOREST:</b>						
TOTAL ... ..	25,219	22	662	20,389	1,358	3,472
1. Dean ... ..	23,962	22	660	19,204	1,331	3,427
2. Tidenham Chase ... ..	1,257	—	2	1,185	27	45

AREA STATEMENT OF LAND USE : BY FORESTS—SCOTLAND

Appendix 13

Acres

Forest	Total	Planted during year ended 30th September, 1950		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-afforested		Plantable	Agricultural, Unplantable, &c.
<b>NORTH CONSERVANCY:</b>						
TOTAL ... ..	282,536	2,286	2,833	65,547	31,162	185,827
1. Borgie ... ..	2,705	—	113	583	730	1,392
2. Inchnacardoch ... ..	9,168	16	129	2,222	473	6,473
3. Portclair ... ..	5,500	—	162	2,263	88	3,149
4. South Laggan ... ..	4,110	—	—	1,127	—	2,983
5. Achnashellach ... ..	19,674	—	54	889	18	18,767
6. Ratagan ... ..	2,481	—	—	1,564	—	917
7. Slattadale ... ..	1,154	—	—	675	—	479
8. Glen Righ ... ..	5,883	—	—	1,675	400	3,808
9. Glen Hurich ... ..	15,180	—	—	2,582	1,271	11,327
10. Glen Urquhart ... ..	3,778	—	80	2,095	653	1,030
11. Culloden ... ..	1,892	—	156	886	986	20
12. Nevis ... ..	7,659	—	—	967	—	6,692
13. The Queen's Forest ... ..	12,500	—	108	2,326	973	9,201
14. Craig nan Eun ... ..	1,922	—	—	1,370	—	552
15. Craig Phadrig ... ..	573	—	—	337	205	31
16. Glen Shiel ... ..	3,653	—	—	765	—	2,888
17. North Strome ... ..	1,969	—	—	873	—	1,096
18. Salen ... ..	7,498	139	11	2,526	190	4,782
19. South Strome ... ..	3,556	—	—	1,196	—	2,360
20. Findon ... ..	1,334	—	—	1,232	5	97
21. Glen Garry ... ..	21,979	208	—	3,538	943	17,498
22. Kessock ... ..	909	—	—	696	92	121
23. Eilanreach ... ..	922	—	—	842	—	80
24. Dornoch ... ..	704	—	—	670	—	34
25. Inverinate ... ..	1,232	—	—	1,034	—	198
26. Balblair ... ..	1,374	—	118	955	215	204
27. Clunes ... ..	5,852	41	—	1,213	354	4,285
28. Lael ... ..	2,272	—	—	1,834	15	423
29. Fiunary ... ..	24,570	254	7	2,893	1,829	19,848
30. Glen Loy ... ..	2,547	—	—	1,778	269	500

Appendix 13—continued

Forest	Total	Planted during year ended 30th September, 1950		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-afforested		Plantable	Agricultural, Unplantable, &c.
31. Glen Brittle ... ..	8,716	28	—	1,385	5	7,326
32. Longart ... ..	1,264	—	106	1,017	127	120
33. Leanachan ... ..	7,546	250	—	1,687	2,316	3,543
34. Guisachan ... ..	2,370	54	47	1,216	1,053	101
35. Ardross ... ..	4,149	—	255	2,699	968	482
36. Inshriach ... ..	2,298	20	121	1,209	568	521
37. Millbuie ... ..	6,425	185	160	5,819	—	606
38. Assich ... ..	1,043	95	12	490	190	363
39. Morangie ... ..	4,679	269	50	885	2,332	1,462
40. Kilcoy ... ..	3,204	137	411	2,237	538	429
41. Strath Nairn ... ..	3,924	161	28	627	1,146	2,151
42. Ferness ... ..	1,538	—	154	453	437	648
43. Strath Conon ... ..	9,799	130	33	641	661	8,497
44. Strath Dearn ... ..	2,305	—	125	434	1,020	851
45. Farigaig ... ..	4,590	15	65	196	542	3,852
46. Urray ... ..	1,028	—	104	158	803	67
47. Battan ... ..	1,036	—	110	110	845	81
48. Rumster ... ..	2,362	71	—	126	—	2,236
49. Laiken ... ..	845	—	61	76	751	18
50. Clach Liath ... ..	547	—	—	41	501	5
51. Shin ... ..	13,602	136	30	269	1,333	12,000
52. Torrachilty ... ..	3,620	—	—	—	194	3,426
53. Raasay ... ..	715	77	23	141	386	188
54. Boblainy ... ..	2,895	—	—	—	2,760	135
55. Ceannacroc ... ..	16,955	—	—	25	1,576	15,354
56. Struie ... ..	531	—	—	—	401	130
<b>EAST CONSERVANCY:</b>						
<b>TOTAL ... ..</b>	<b>161,106</b>	<b>4,209</b>	<b>2,760</b>	<b>77,881</b>	<b>44,507</b>	<b>38,718</b>
1. Monaughty ... ..	4,397	—	33	2,987	862	548
2. Kirkhill ... ..	1,541	1	143	1,143	268	130
3. Montreathmont ... ..	2,442	—	17	2,081	99	262
4. Culbin ... ..	6,344	266	123	4,793	1,311	240
5. Edensmuir ... ..	1,304	48	—	1,166	122	16
6. Tentsmuir ... ..	4,149	—	17	3,475	25	649
7. Drummond Hill ... ..	5,319	—	—	3,627	2	1,690
8. Teindland ... ..	1,305	—	20	1,169	49	87
9. The Bin ... ..	5,927	16	96	4,556	366	1,005
10. Speymouth ... ..	5,255	402	—	1,929	2,511	815
11. Blairadam ... ..	1,750	13	—	1,463	—	287
12. Drumtochty ... ..	3,340	6	12	2,339	72	929
13. Kemnay ... ..	1,227	—	—	1,152	54	21
14. Midmar ... ..	905	—	—	648	—	257
15. Deer ... ..	2,292	—	24	2,059	49	184
16. Scootmore ... ..	3,068	104	—	2,140	448	480
17. Clashindarroch ... ..	21,148	773	—	7,380	9,020	4,748
18. Roseisle ... ..	2,322	—	72	1,937	359	26
19. Blackcraig ... ..	2,048	3	—	1,526	249	273
20. Carden ... ..	482	—	—	457	—	25
21. Inglismaldie ... ..	1,131	—	—	1,109	13	9
22. Durris ... ..	3,842	101	210	3,304	250	288
23. Newton ... ..	175	—	—	—	15	160
24. Newtyle ... ..	1,085	—	—	886	15	184
25. Alltcaileach ... ..	3,833	—	338	3,292	366	175
26. Kinfauns ... ..	717	—	—	651	66	—
27. Whitehaugh ... ..	1,576	32	10	1,177	26	373
28. Craig Vinean ... ..	4,762	217	—	2,304	171	2,287
29. Glen Devon ... ..	915	84	—	759	131	25
30. Lossie ... ..	1,904	128	—	1,267	328	309
31. Keillour ... ..	2,181	92	80	1,136	666	379
32. Tilliefour ... ..	3,632	—	253	1,549	1,012	1,071

Appendix 13—continued

Forest	Total	Planted during year ended 30th September, 1950		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-afforested		Plantable	Agricultural, Unplantable, &c.
33. Blackhall ... ..	3,233	—	258	1,322	798	1,113
34. Rosarie ... ..	3,641	191	184	1,393	1,930	318
35. Pitfichie ... ..	5,053	—	307	1,431	2,423	1,199
36. Fetteresso ... ..	8,063	523	—	2,013	3,386	2,664
37. Strathord ... ..	1,020	189	—	849	149	22
38. Allean ... ..	2,940	278	—	722	584	1,634
39. Auchernach ... ..	1,560	71	21	396	346	818
40. Dallas ... ..	2,021	90	11	542	688	791
41. Countesswells ... ..	664	36	59	499	130	35
42. Pitmedden ... ..	1,476	151	—	1,115	164	197
43. Rannoch ... ..	3,786	131	65	960	2,429	397
44. Tomintoul ... ..	1,444	8	96	330	701	413
45. Hallyburton ... ..	896	—	132	211	675	10
46. Corrennie ... ..	1,018	—	131	182	766	70
47. Delgaty... ..	816	—	48	48	768	—
48. Glen Isla ... ..	10,465	255	—	306	6,644	3,515
49. Glen Doll ... ..	8,164	—	—	95	1,383	6,686
50. Glen Errochty... ..	2,325	—	—	6	1,530	789
51. Ledmore ... ..	203	—	—	—	88	115
<b>SOUTH CONSERVANCY:</b>						
<b>TOTAL ... ..</b>	<b>207,374</b>	<b>7,094</b>	<b>427</b>	<b>48,232</b>	<b>52,035</b>	<b>107,107</b>
1. Glentress ... ..	2,349	—	75	1,592	297	460
2. Cairn Edward ... ..	15,033	754	—	4,251	6,475	4,307
3. Newcastleton ... ..	3,553	3	8	3,280	105	168
4. Dalbeattie ... ..	4,449	85	68	3,595	167	687
5. Forest of Ae ... ..	10,708	693	—	4,765	3,149	2,794
6. Edgarhope ... ..	1,711	—	24	1,020	190	501
7. Greskine ... ..	1,155	—	—	827	145	183
8. Auchenroddan ... ..	730	—	—	704	—	26
9. Kirroughtree ... ..	15,382	166	1	2,952	5,346	7,084
10. Fleet ... ..	1,785	—	—	988	147	650
11. Kilsture ... ..	500	—	—	492	4	4
12. Changue ... ..	2,190	285	—	1,440	79	671
13. Dundough ... ..	5,965	60	1	922	3,733	1,310
14. Tinnisburn ... ..	1,404	50	—	1,215	59	130
15. Corriedoo ... ..	1,022	111	—	840	136	46
16. Gargrogo ... ..	1,921	164	37	770	928	223
17. Laurieston ... ..	4,405	275	—	904	2,476	1,025
18. Twiglees ... ..	5,137	651	—	4,186	594	357
19. Castle O'er ... ..	2,646	256	—	2,101	183	362
20. Glen Trool ... ..	41,550	808	—	2,030	5,358	34,162
21. Clauchrie ... ..	639	81	—	296	338	5
22. Shielswood ... ..	1,013	—	—	—	—	1,013
23. Mabie ... ..	3,433	232	103	1,409	767	1,257
24. Wauchope ... ..	9,111	507	—	1,698	4,238	3,175
25. Carrick ... ..	48,335	664	—	1,412	5,630	41,293
26. Elibank... ..	2,912	251	—	1,057	954	901
27. Glen Gap ... ..	1,994	206	—	510	1,015	469
28. Craik ... ..	3,368	475	—	886	1,966	516
29. Cardrona ... ..	1,860	58	—	1,331	—	529
30. Craigieburn ... ..	586	83	—	308	270	8
31. Leithope ... ..	1,165	121	—	187	978	—
32. Brownmoor ... ..	386	55	—	55	331	—
33. Dalmacallan ... ..	1,455	—	57	65	891	499
34. Kilgrammie ... ..	568	—	53	62	506	—
35. Bareagle ... ..	67	—	—	—	25	42
36. Duns ... ..	225	—	—	—	223	2
37. Penninghame ... ..	4,372	—	—	—	2,370	2,002
38. Stenton ... ..	311	—	—	15	296	—
39. Yair Hill ... ..	1,979	—	—	67	1,666	246

Appendix 13—continued

Forest	Total	Planted during year ended 30th September, 1950		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-afforested		Plantable	Agricultural, Unplantable, &c.
WEST CONSERVANCY:						
TOTAL ... ..	233,098	4,405	331	64,837	34,051	134,210
1. Inverliever ... ..	28,095	200	—	4,483	1,955	21,657
2. Glen Duror ... ..	8,319	—	—	2,241	199	5,879
3. Glen Branter ... ..	10,915	57	—	3,874	327	6,714
4. Ardgartan ... ..	18,127	9	—	4,259	953	12,915
5. Barcaldine ... ..	4,006	148	—	3,046	886	74
6. Benmore ... ..	12,999	—	112	3,990	1,475	7,534
7. Glen Finart ... ..	8,712	126	—	2,480	290	5,942
8. Fearnoch ... ..	1,342	—	—	1,121	—	221
9. Lennox ... ..	580	—	7	533	—	47
10. Loch Ard ... ..	26,910	657	—	9,482	6,429	10,999
11. Devilla ... ..	918	—	96	904	—	14
12. Achaglachgach ... ..	1,969	5	—	1,576	—	393
13. Knapdale ... ..	19,704	200	—	4,601	1,995	13,108
14. Strathyre ... ..	10,461	60	51	5,150	401	4,910
15. Tulliallan ... ..	112	—	—	—	—	112
16. Garadhban ... ..	1,125	56	—	1,068	—	57
17. Inverinan ... ..	12,796	63	56	2,668	2,919	7,209
18. Asknish ... ..	5,900	320	—	2,008	1,253	2,639
19. Carron Valley ... ..	6,640	286	—	3,237	1,508	1,895
20. Carradale ... ..	10,583	331	9	2,021	1,371	7,191
21. Minard ... ..	5,189	225	—	1,306	1,556	2,327
22. Saddell ... ..	4,917	176	—	779	507	3,631
23. Kilmichael ... ..	12,687	430	—	1,310	3,149	8,228
24. Corlarach ... ..	1,522	258	—	776	6	740
25. Glendaruel ... ..	6,055	255	—	584	1,967	3,504
26. Strath Lachlan ... ..	7,616	290	—	827	1,873	4,916
27. Torrie ... ..	976	212	—	404	466	106
28. Garelochhead ... ..	397	20	—	20	278	99
29. Glen Coe ... ..	357	—	—	36	239	82
30. Kilmory ... ..	3,169	21	—	53	2,049	1,067

AREA STATEMENT OF LAND USE : BY FORESTS—WALES

Appendix 14

As at 30th September, 1950

Acres

Forest	Total	Planted during year ended 30th September, 1950		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-afforested		Plantable	Agricultural, Unplantable, &c.
NORTH CONSERVANCY:						
TOTAL ... ..	126,960	5,160	912	59,594	28,086	39,280
1. Hafod Fawr ... ..	1,367	38	—	552	82	733
2. Gwydyr ... ..	19,121	698	23	9,142	2,342	7,637
3. Coed y Brenin ... ..	16,532	491	83	7,520	2,111	6,901
4. Kerry ... ..	2,326	—	108	2,158	41	127
5. Beddgelert ... ..	2,771	11	3	1,668	42	1,061
6. Cynwyd ... ..	1,700	—	—	1,477	108	115
7. Dovey ... ..	14,532	502	103	8,802	3,162	2,568
8. Radnor ... ..	4,647	—	134	2,715	645	1,287
9. Cwmeinion ... ..	938	4	—	606	—	332
10. Mathrafal ... ..	810	1	23	456	332	22
11. Tarenig ... ..	2,614	108	—	1,449	98	1,067
12. Bryn Mawr ... ..	1,695	148	13	910	536	249
13. Myherin ... ..	8,564	314	57	4,607	634	3,323

Appendix 14—continued

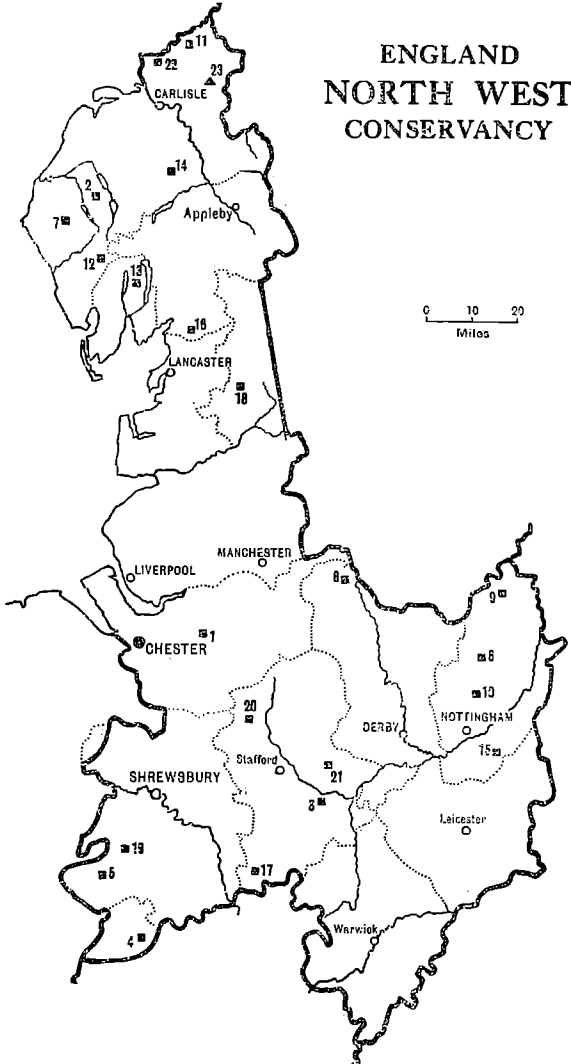
Forest	Total	Planted during year ended 30th September, 1950		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-afforested		Plantable	Agricultural Unplantable, &c.
14. Cloacaenog ... ..	14,932	587	13	7,620	3,617	3,695
15. Dyfnant ... ..	4,470	216	16	1,014	2,313	1,143
16. Hafren ... ..	10,487	625	—	4,161	3,218	3,108
17. Coed Sarnau ... ..	4,405	397	23	1,886	1,328	1,191
18. Newborough ... ..	2,101	174	—	517	922	662
19. Aberhirnant ... ..	6,399	421	35	729	2,394	3,276
20. Carno ... ..	345	72	—	125	172	48
21. Coed Clwyd ... ..	1,338	185	—	273	779	286
22. Coed y Goror ... ..	988	36	115	350	613	25
23. Commins Coch ... ..	996	127	23	259	470	267
24. St. Asaph ... ..	1,175	5	132	480	600	95
25. Bechan ... ..	116	—	8	8	108	—
26. Coed Penllyn ... ..	1,351	—	—	110	1,197	44
27. Pentraeth ... ..	236	—	—	—	222	14
Chirk Depot ... ..	4	—	—	—	—	4
<b>SOUTH CONSERVANCY:</b>						
TOTAL ... ..	100,207	4,219	1,373	55,179	24,485	20,543
1. Tintern ... ..	4,904	5	144	4,168	321	415
2. Margam ... ..	5,637	223	165	1,947	2,848	842
3. Llanover ... ..	2,677	24	51	2,359	66	252
4. Llantrisant ... ..	1,157	—	5	1,045	19	93
5. Chepstow ... ..	998	—	—	989	9	—
6. Rheola ... ..	13,748	799	174	7,869	4,553	1,326
7. Brechfa ... ..	15,094	568	194	10,794	665	3,635
8. Brecon ... ..	1,870	—	—	1,575	—	295
9. Glasfynydd ... ..	2,951	279	8	2,403	422	126
10. Pembrey ... ..	4,503	68	—	1,487	895	2,121
11. Caio ... ..	3,568	181	10	2,454	67	1,047
12. Crychan ... ..	9,665	346	95	4,915	2,236	2,514
13. Mynydd Ddu ... ..	2,719	48	—	1,521	450	748
14. Itton ... ..	515	—	11	349	165	1
15. Hay ... ..	925	—	—	705	194	26
16. St. Gwynno ... ..	3,289	420	—	2,146	434	709
17. Coed y Rhaiadr ... ..	824	33	—	589	208	27
18. Cwmogwr ... ..	3,723	238	2	1,184	1,229	1,310
19. Giedd ... ..	746	81	40	569	33	144
20. Michaelston ... ..	5,368	393	—	2,108	2,411	849
21. Tair Onen ... ..	189	—	11	49	—	140
22. Usk ... ..	1,117	—	54	1,027	—	90
23. Monmouth ... ..	498	—	29	299	108	91
24. Wentwood ... ..	1,162	—	156	708	438	16
25. Cilgwyn ... ..	191	—	—	189	—	2
26. Goytre ... ..	240	—	31	201	35	4
27. Derry Ormond ... ..	768	45	193	421	164	183
28. Taf Fechan ... ..	1,131	255	—	723	267	141
29. Coed Caerdydd ... ..	2,342	131	—	227	905	1,210
30. Slebech ... ..	1,401	82	—	99	1,260	42
31. Dunraven ... ..	4,018	—	—	—	2,001	2,017
32. Draethen ... ..	342	—	—	21	308	13
33. Ebbw ... ..	269	—	—	—	267	2
34. Gamrhiw ... ..	486	—	—	39	335	112
35. Irfon ... ..	340	—	—	—	340	—
36. Towy ... ..	832	—	—	—	832	—



**OUTLINE MAPS SHOWING CONSERVANCY BOUNDARIES AND DISTRIBUTION OF FORESTS AS AT SEPTEMBER 30th, 1950**

**Appendix 15**

Forests are listed by Conservancies in order of acquisition ; newly acquired units are shown by triangles: former Crown Woods are indicated in the lists by asterisks.



**ENGLAND  
NORTH WEST  
CONSERVANCY**

0 10 20  
Miles

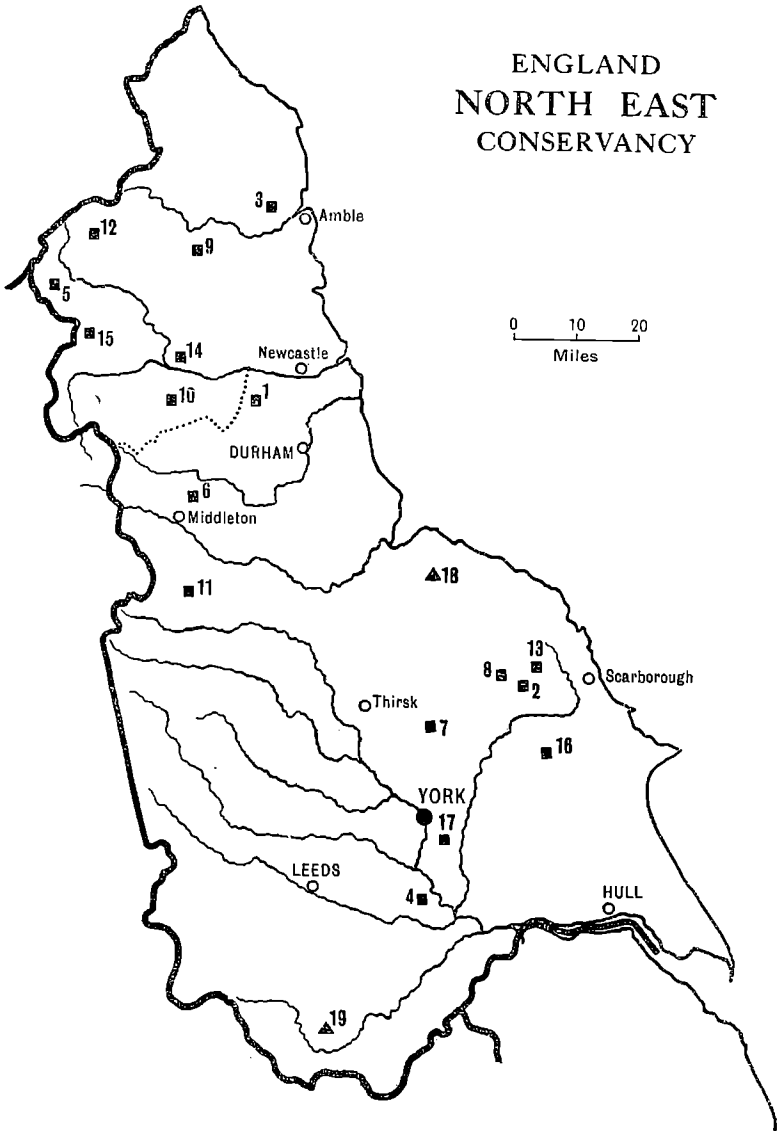
*Conservator's Office:* Upton Grange, Upton-by-Chester, Cheshire (Chester 24006)

- |  |                           |
|--|---------------------------|
| 1. Delamere, Cheshire*                 | 14. Greystoke, Cumberland |
| 2. Thornthwaite, Cumberland            | 15. Cotgrave, Notts.      |
| 3. Cannock Chase, Staffs.              | 16. Dalton, Westmorland   |
| 4. Mortimer, Hereford and Salop.       | 17. Kinver, Staffs.       |
| 5. Walcot, Salop.                      | 18. Gisburn, Yorks.       |
| 6. Clipstone, Derby, Notts. and Yorks. | 19. Long Mynd, Salop.     |
| 7. Ennerdale, Cumberland               | 20. Swynnerton, Staffs.   |
| 8. Hope, Derby                         | 21. Bagot, Staffs.        |
| 9. Bawtry, Notts.                      | 22. Longtown, Cumberland. |
| 10. Sherwood, Notts.                   |                           |
| 11. Kershope, Cumberland               |                           |
| 12. Hardknott, Cumberland and Lancs.   |                           |
| 13. Grizedale, Lancs.                  |                           |

*New Unit, 1950.*

23. Spadeadam, Cumberland

# ENGLAND NORTH EAST CONSERVANCY



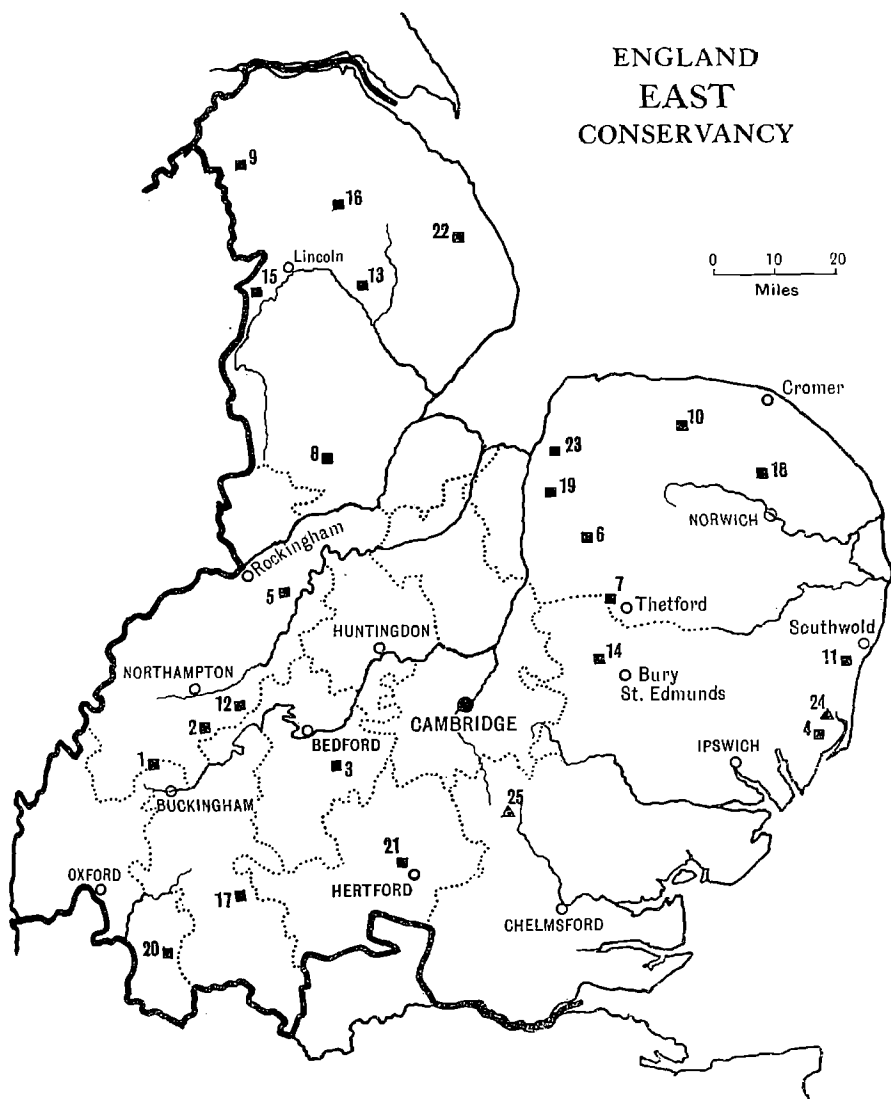
*Conservator's Office: Briar House, Fulford Road, York (York 4684)*

- |                             |                               |
|-----------------------------|-------------------------------|
| 1. Chopwell, Durham*        | 12. Redesdale, Northumberland |
| 2. Allerston, Yorks.        | 13. Langdale, Yorks.          |
| 3. Rothbury, Northumberland | 14. Widehaugh, Northumberland |
| 4. Selby, Yorks.            | 15. Wark, Northumberland      |
| 5. Kielder, Northumberland  | 16. Scardale, Yorks.          |
| 6. Hamsterley, Durham       | 17. York, Yorks.              |
| 7. Ampleforth, Yorks.       |                               |
| 8. Rosedale, Yorks.         |                               |
| 9. Harwood, Northumberland  |                               |
| 10. Slaley, Northumberland  |                               |
| 11. Arkengarthdale, Yorks.  |                               |

*New Units, 1950.*

- |                        |
|------------------------|
| 18. Cleveland, Yorks.  |
| 19. Wharnciffe, Yorks. |

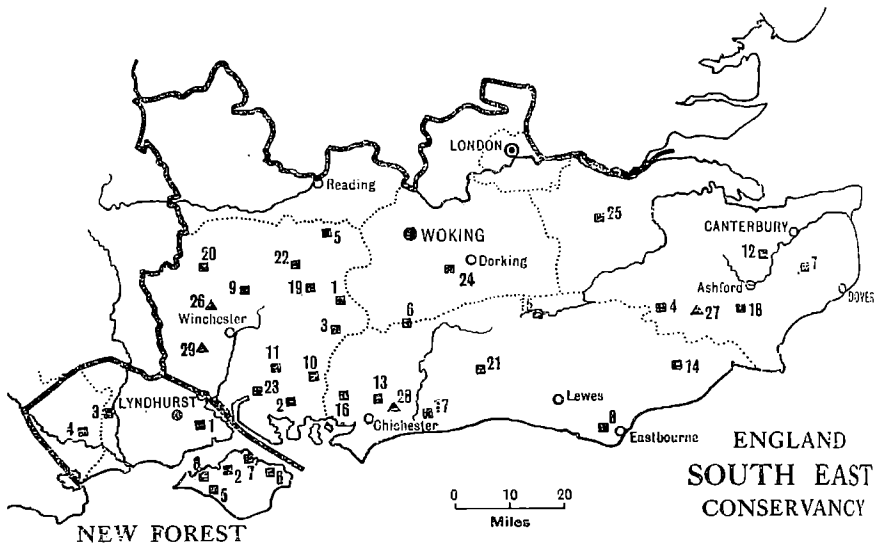
# ENGLAND EAST CONSERVANCY



*Conservator's Office: Brooklands Avenue, Cambridge (Cambridge 54495)*

- |  |   |
|--|---|
| 1. Hazelborough, Bucks and Northants.*     | 15. Wigsley, Lincoln and Nottingham                 |
| 2. Salcey, Bucks. and Northants.*          | 16. Willingham, Lincoln                             |
| 3. Ampthill, Beds.                         | 17. Wendover, Bucks.                                |
| 4. Rendlesham, Suffolk                     | 18. Hevingham, Norfolk                              |
| 5. Rockingham, Northampton                 | 19. Shouldham, Norfolk                              |
| 6. Swaffham, Norfolk                       | 20. Watlington, Oxford                              |
| 7. Thetford Chase, Norfolk and Suffolk     | 21. Bramfield, Herts.                               |
| 8. Bourne, Lincoln and Rutland             | 22. Burwell, Lincs.                                 |
| 9. Laughton, Lincoln                       | 23. Gaywood, Norfolk                                |
| 10. Swanton, Norfolk                       |   |
| 11. Dunwich, Suffolk                       |   |
| 12. Yardley Chase, Bedford and Northampton |   |
| 13. Bardney, Lincoln                       | 24. Tunstall, Suffolk (formerly part of Rendlesham) |
| 14. The King's Forest, Suffolk             | 25. Walden, Essex                                   |

*New Units, 1950*



### SOUTH-EAST CONSERVANCY

*Conservator's Office:* Danesfield, Grange Road, Woking (Woking 2270)

- |   |                         |
|---|-------------------------|
| 1. Alice Holt, Hants.*                            | 18. Orlestone, Kent     |
| 2. Bere, Hants.*                                  | 19. Alton, Hants        |
| 3. Woolmer, Hants.*                               | 20. Andover, Hants.     |
| 4. Bedgebury, Kent and Sussex*                    | 21. Southwater, Sussex  |
| 5. Bramshill, Berks. and Hants.                   | 22. Basing, Hants.      |
| 6. Chiddingfold, Surrey and Sussex                | 23. Bishopstoke, Hants. |
| 7. Lyminge, Kent                                  | 24. Abinger, Surrey     |
| 8. Friston, Sussex                                | 25. Shipbourne, Kent    |
| 9. Micheldever, Hants.                            |                         |
| 10. Buriton, Hants. and Sussex                    |                         |
| 11. Westbury, Hants.                              |                         |
| 12. Challock, Kent                                |                         |
| 13. Charlton, Sussex (formerly known as Goodwood) |                         |
| 14. Vinehall, Sussex                              |                         |
| 15. Gravetye, Sussex                              |                         |
| 16. Marden, Sussex                                |                         |
| 17. Arundel, Sussex                               |                         |

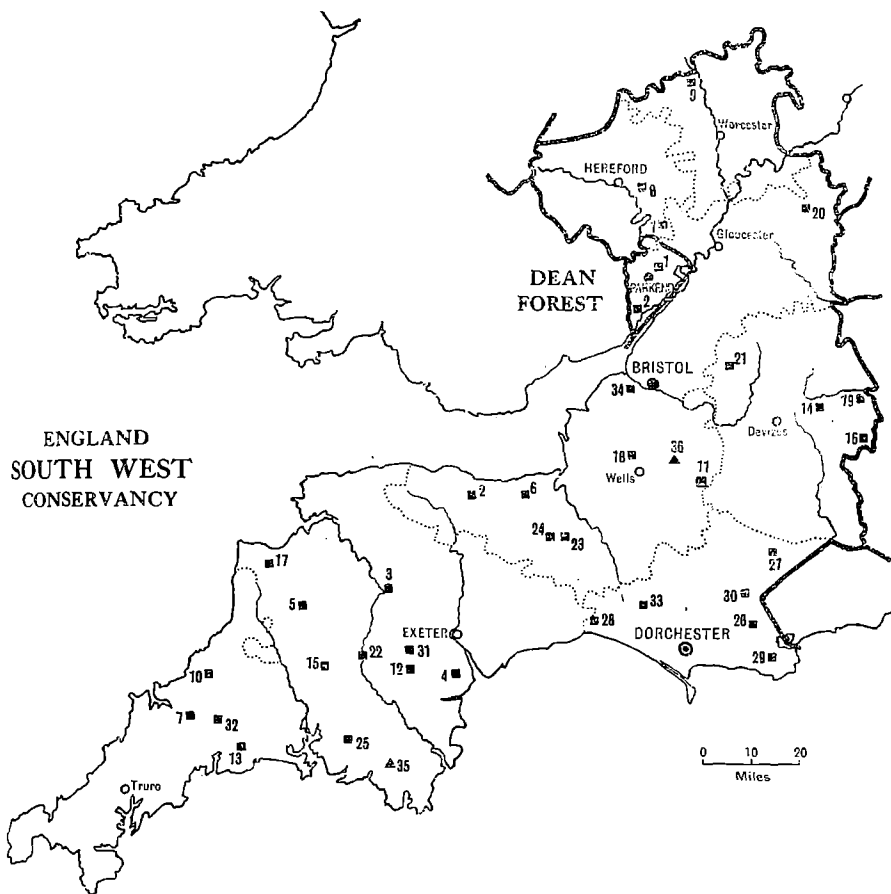
#### *New Units, 1950.*

- |  |
|--|
| 26. Crawley, Hants. (formerly part of Micheldever) |
| 27. Hemsted, Kent (formerly part of Bedgebury)     |
| 28. Slindon, Sussex (formerly part of Goodwood)    |
| 29. Hursley, Hants.                                |

### NEW FOREST

*Deputy Surveyor's Office:* The King's House, Lyndhurst (Lyndhurst 300)

- |                                |                              |
|--------------------------------|------------------------------|
| 1. New Forest, Hants.*         | 5. Brighstone, Isle of Wight |
| 2. Parkhurst, Isle of Wight*   | 6. Combley, Isle of Wight    |
| 3. Ringwood, Dorset and Hants. | 7. Osborne, Isle of Wight    |
| 4. Ferndown, Dorset            | 8. Shalfleet, Isle of Wight  |



**SOUTH-WEST CONSERVANCY**

*Conservator's Office:* Flowers Hill, Brislington, Bristol 4, (Bristol 78041)

- |                                     |   |
|-------------------------------------|---|
| 1. Dymock, Gloucester and Hereford* | 21. Braydon, Wilts.                               |
| 2. Brendon, Somerset                | 22. Okehampton, Devon                             |
| 3. Eggesford, Devon                 | 23. Neroche, Somerset                             |
| 4. Haldon, Devon                    | 24. Culmhead, Somerset                            |
| 5. Halwill, Devon                   | 25. Plym, Devon                                   |
| 6. Quantock, Somerset               | 26. Wareham, Dorset.                              |
| 7. Bodmin, Cornwall                 | 27. Gardiner, Dorset and Wilts.                   |
| 8. Haugh, Hereford                  | 28. Charmouth, Devon and Dorset.                  |
| 9. Wyre, Worcester                  | 29. Purbeck, Dorset.                              |
| 10. Wilsey Down, Cornwall           | 30. Blandford, Dorset.                            |
| 11. Bruton, Somerset and Wilts.     | 31. Fernworthy, Devon (formerly part of Dartmoor) |
| 12. Dartmoor, Devon                 | 32. Glynn, Cornwall (formerly part of Bodmin)     |
| 13. Herodsfoot, Cornwall            | 33. Poorstock, Dorset.                            |
| 14. West Woods, Wilts.              | 34. Stokeleigh, Somerset.                         |
| 15. Lydford, Devon                  |   |
| 16. Collingbourne, Wilts.           |   |
| 17. Hartland, Devon                 |   |
| 18. Mendip, Somerset                |   |
| 19. Savernake, Wilts.               |   |
| 20. Stanway, Gloucester             |   |

*New Units, 1950.*

- |                       |
|-----------------------|
| 35. Erme, Devon       |
| 36. Shepton, Somerset |

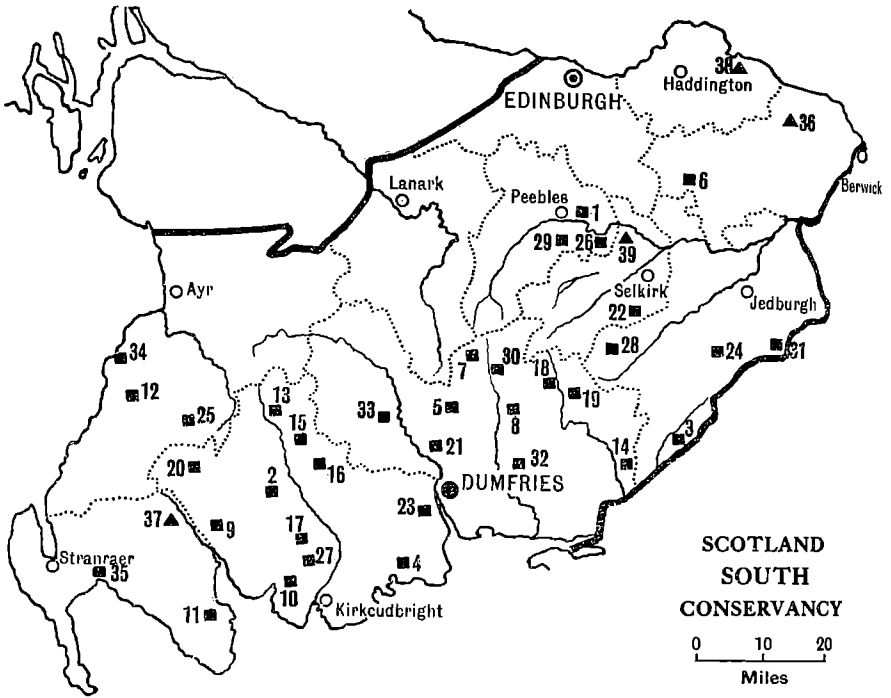
**DEAN FOREST**

*Deputy Surveyor's Office:* Whitmead Park, Parkend, nr. Lydney (Whitecroft 305)

- |   |                               |
|---|-------------------------------|
| 1. Dean Forest, Gloucester, Hereford, and Monmouth* | 2. Tidenham Chase, Gloucester |
|---|-------------------------------|







*Conservator's Office: Greystone Park, Moffat Road, Dumfries (Dumfries 1156)*

- |                                       |                             |
|---------------------------------------|-----------------------------|
| 1. Glentress, Peebles                 | 22. Shielswood, Selkirk     |
| 2. Cairn Edward, Kirkcudbright        | 23. Mabie, Kirkcudbright    |
| 3. Newcastleton, Roxburgh             | 24. Wauchope, Roxburgh      |
| 4. Dalbeattie, Kirkcudbright          | 25. Carrick, Ayr            |
| 5. Forest of Ae, Dumfries             | 26. Elibank, Peebles        |
| 6. Edgarhope, Berwick                 | 27. Glen Gap, Kirkcudbright |
| 7. Greskine, Dumfries                 | 28. Craik, Roxburgh         |
| 8. Auchenroddan, Dumfries             | 29. Cardrona, Peebles       |
| 9. Kirroughtree, Kirkcudbright        | 30. Craigieburn, Dumfries   |
| 10. Fleet, Kirkcudbright              | 31. Leithope, Roxburgh      |
| 11. Kilsture, Wigtown                 | 32. Brownmoor, Dumfries.    |
| 12. Changue, Ayr                      | 33. Dalmacallan, Dumfries.  |
| 13. Dundough, Kirkcudbright           | 34. Kilgrammie, Ayr.        |
| 14. Tinnisburn, Dumfries and Roxburgh | 35. Bareagle, Wigtown.      |
| 15. Corriedoo, Kirkcudbright          |                             |
| 16. Garcrogo, Kirkcudbright           |                             |
| 17. Laurieston, Kirkcudbright         |                             |
| 18. Twiglees, Dumfries                |                             |
| 19. Castle O'er, Dumfries             |                             |
| 20. Glen Trool, Kirkcudbright         |                             |
| 21. Clauchrie, Dumfries               |                             |

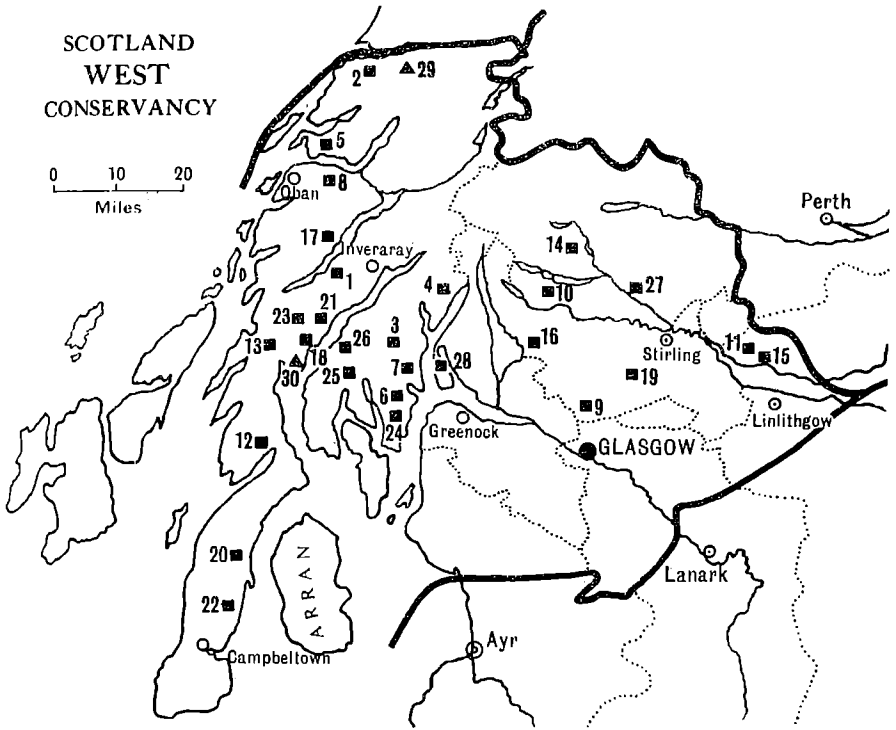
*New Units, 1950.*

- |                           |
|---------------------------|
| 36. Duns, Berwick         |
| 37. Penninghame, Wigtown  |
| 38. Stenton, East Lothian |
| 39. Yair Hill, Selkirk    |



SCOTLAND  
WEST  
CONSERVANCY

0 10 20  
Miles

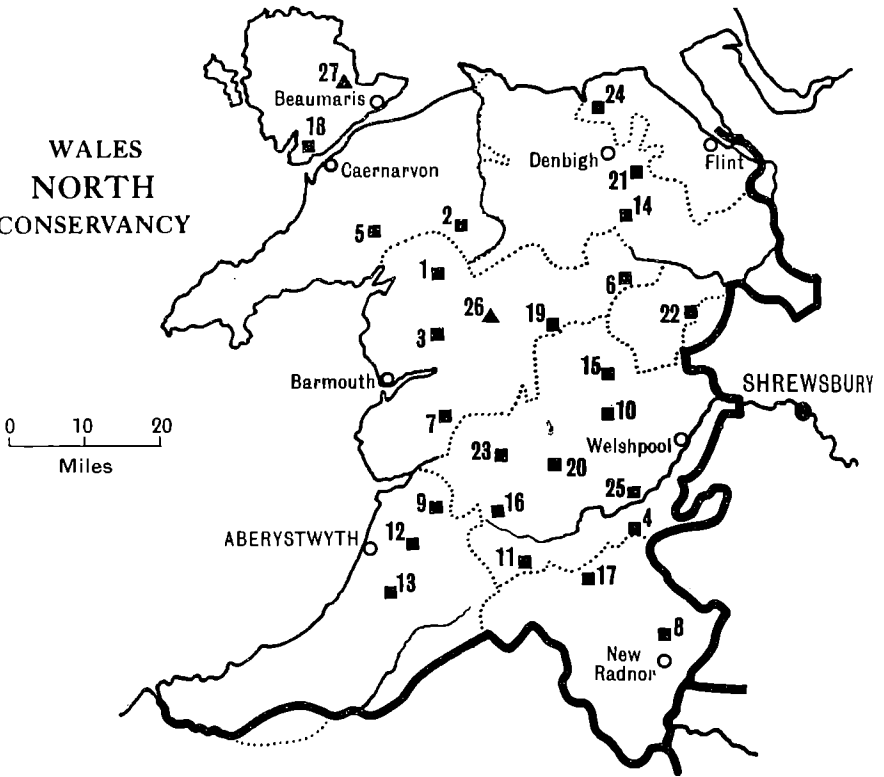


*Conservator's Office: 53, Bothwell Street, Glasgow, C.2 (Central 6868)*

- |                           |                              |
|---------------------------|------------------------------|
| 1. Inverliever, Argyll*   | 17. Inverinan, Argyll        |
| 2. Glen Duror, Argyll     | 18. Asknish, Argyll          |
| 3. Glen Branter, Argyll   | 19. Carron Valley, Stirling  |
| 4. Ardgartan, Argyll      | 20. Carradale, Argyll        |
| 5. Barcaldine, Argyll     | 21. Minard, Argyll           |
| 6. Benmore, Argyll        | 22. Saddell, Argyll          |
| 7. Glen Finart, Argyll    | 23. Kilmichael, Argyll       |
| 8. Fearnoch, Argyll       | 24. Corlarach, Argyll        |
| 9. Lennox, Stirling       | 25. Glendaruel, Argyll       |
| 10. Loch Ard, Perth       | 26. Strath Lachlan, Argyll   |
| 11. Devilla, Fife         | 27. Torrie, Perth            |
| 12. Achaglachgach, Argyll | 28. Garelochhead, Dunbarton. |
| 13. Knapdale, Argyll      |                              |
| 14. Strathyre, Perth      |                              |
| 15. Tulliallan, Fife      |                              |
| 16. Garadhban, Stirling   |                              |
|                           | 29. Glen Coe, Argyll         |
|                           | 30. Kilmory, Argyll          |

*New Units, 1950.*

WALES  
NORTH  
CONSERVANCY



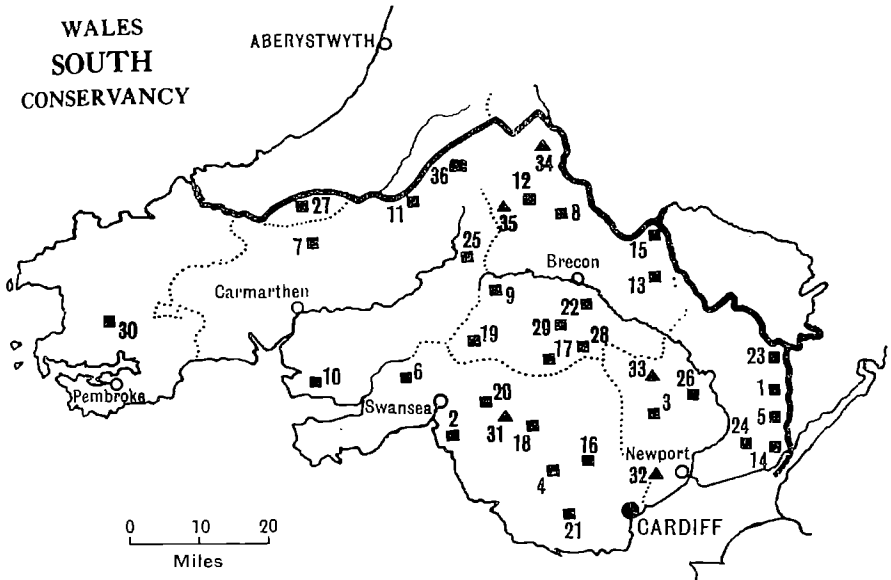
*Conservator's Office: 35, Hills Lane, Shrewsbury (Shrewsbury 4071)*

- |                                      |                                     |
|--------------------------------------|-------------------------------------|
| 1. Hafod Fawr, Merioneth*            | 16. Hafren, Montgomery              |
| 2. Gwydyr, Caernarvon and Denbigh    | 17. Coed Sarnau, Radnor             |
| 3. Coed y Brenin, Merioneth          | 18. Newborough, Anglesey            |
| 4. Kerry, Montgomery and Salop       | 19. Aberhrrnant, Merioneth          |
| 5. Beddgelert, Caernarvon            | 20. Carno, Montgomery               |
| 6. Cynwyd, Merioneth                 | 21. Coed Clwyd, Denbigh             |
| 7. Dovey, Merioneth and Montgomery   | 22. Coed y Goror, Denbigh and Salop |
| 8. Radnor, Radnor                    | 23. Commins Coch, Montgomery        |
| 9. Cwmeinion, Cardigan               | 24. St. Asaph, Denbigh and Flint    |
| 10. Mathrafal, Montgomery            | 25. Bechan, Montgomery.             |
| 11. Tarenig, Cardigan and Montgomery |                                     |
| 12. Bryn Mawr, Cardigan              |                                     |
| 13. Myherin, Cardigan                |                                     |
| 14. Clocaenog, Denbigh and Merioneth |                                     |
| 15. Dyfnant, Montgomery              |                                     |

*New Units, 1950.*

- |                             |
|-----------------------------|
| 26. Coed Penllyn, Merioneth |
| 27. Pentraeth, Anglesey     |

WALES  
SOUTH  
CONSERVANCY



Conservator's Office: 166, Newport Road, Cardiff (Cardiff 44401)

- |                                     |                            |
|-------------------------------------|----------------------------|
| 1. Tintern, Monmouth*               | 21. Tair Onen, Glamorgan   |
| 2. Margam, Glamorgan                | 22. Usk, Brecon            |
| 3. Llanover, Monmouth               | 23. Monmouth, Monmouth     |
| 4. Llantrisant, Glamorgan           | 24. Wentwood, Monmouth     |
| 5. Chepstow, Monmouth               | 25. Cilgwyn, Carmarthen    |
| 6. Rheola, Glamorgan                | 26. Goytre, Monmouth       |
| 7. Brechfa, Carmarthen              | 27. Derry Ormond, Cardigan |
| 8. Brecon, Brecon                   | 28. Taf Fechan, Brecon     |
| 9. Glasfynydd, Brecon               | 29. Coed Caerdydd, Brecon  |
| 10. Pembrey, Carmarthen             | 30. Slebech, Pembroke      |
| 11. Caio, Carmarthen                |                            |
| 12. Crychan, Brecon and Carmarthen  |                            |
| 13. Mynydd Ddu, Brecon and Monmouth |                            |
| 14. Itton, Monmouth                 |                            |
| 15. Hay, Brecon and Hereford        |                            |
| 16. St. Gwynno, Glamorgan           |                            |
| 17. Coed y Rhaiadr, Brecon          |                            |
| 18. Cwmogwr, Glamorgan              |                            |
| 19. Giedd, Brecon                   |                            |
| 20. Michaelston, Glamorgan          |                            |

*New Units, 1950.*

- |   |
|---|
| 31. Dunraven, Glamorgan   |
| 32. Draethen, Glamorgan   |
| 33. Ebbw, Monmouth  |
| 34. Gamrhiw, Brecon   |
| 35. Irfon, Brecon   |
| 36. Towy, Cardigan, and Brecon (formerly included in North Wales Conservancy) |

