

FORESTRY COMMISSION

THIRTY-FIFTH
ANNUAL REPORT OF THE
FORESTRY COMMISSIONERS
FOR THE YEAR ENDED
SEPTEMBER 30TH
1954

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

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FORESTRY COMMISSION,
25, SAVILE ROW,
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23rd March, 1955

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 35th Annual Report of the Forestry Commissioners covering the Forest Year ended 30th September 1954.

I am,

Gentlemen,

Your obedient Servant,

(Sd.) RADNOR,

Chairman.

CONTENTS

	<i>Page</i>
MEMORIAL TO THE LATE LORD ROBINSON	7
GENERAL REVIEW	7
Forestry Commission Operations	7
Planting and Acquisition of Land	7
Advisory Panel on the Highlands and Islands	8
Production and Use of Timber	8
Tests of Home-Grown Timbers	10
Private Forestry	11
Dedication	11
Grants	11
Co-operative Forestry Societies	12
Planting in Private Woodlands	12
The Felling Quota	12
Licensing	12
Marketing of Woodland Produce	13
Home Grown Timber Advisory Committee	13
Committee on Hedgerow and Farm Timber	13
Wages and Conditions of Industrial Employees	13
Accounting	14
Windblow in Scotland	14
Grey Squirrels	16
Gift of Land	16
Forester Training Schools	17
Conferences and Visits Abroad	17
 SUMMARY OF THE YEAR'S WORK	 18
ORGANISATION	20
The Forestry Commissioners	20
The National Committees	20
The Regional Advisory Committees	20
The Home Grown Timber Advisory Committee	22
Departmental Committee on Marketing of Woodland Produce	22
Departmental Committee on Hedgerow and Farm Timber	23
The Commissioners' Staff	23
Professional and Technical Staff	23
Administrative, Executive and Clerical Staff	24
Labour Employed	24
 THE YEAR'S WORK	 25
The Forestry Fund	25
Financial Tables	25
Acquisition and Utilisation of Land	26
Land not Placed at the Disposal of the Commissioners	26
Number of Forests	27
Land Acquired during the Year	28
Progress of Acquisition of Plantable Land	29
Land Acquired to Date	29
Cultural Operations	30
Forest Nurseries	30
Seed Supply	30
Home Collected Seed	31
Imports of Seed	32
Sales of Seed	33

	<i>Page</i>
Nursery Work	33
Nursery Area	34
Use of Nursery Ground	34
Seed Sown	34
Stocks of Seedlings and Transplants...	34
Sales of Nursery Stock	34
Plantations	37
Plants used for Planting and Beating Up ...	38
Progress of Planting to Date	39
Forest Protection	39
Fire Protection... ..	39
Protection against Damage by Animals and Insects	41
Production and Sale of Produce	41
Thinning and Clear Felling	41
Production and Disposal of Forest Products	42
Licensing of Timber Felling	43
Roads	44
Estate Management	44
Buildings	45
Stores	46
Lost Time: Holidays: Sick Pay	46
Miscellaneous Expenditure	45
Private Forestry	46
The Dedication Scheme	47
Approved Woodlands... ..	47
Planting on Private Estates	48
Scrub Clearance Grants	49
Thinning Grants	50
Research and Experiment	50
Silviculture	50
Forest Genetics	51
Forest Pathology	51
Studies of Growth and Yield... ..	52
Forest Entomology	52
Machinery Research	53
Utilisation Research	53
Advisory Committee on Forest Research ...	53
Grants to Universities and Other Institutions	53
Education	54
Forester Training Schools	54
Short Courses for Forest Workers	54
Forestry Apprenticeship Scheme	54
Northerwood House	55
Course on Forestry Practice in Scotland ...	55
Publications	55
Publicity and Public Relations	56
National Forest Parks... ..	57

APPENDICES

	<i>Page</i>
1 Payments by Heads of Account, and Receipts	58
2 Expenditure and Income	58
3 Forestry Operations	59
4 Cultural Operations	59
5 Private Forestry	60
6 Research and Experiment	60
7 Education	61
8 Special Services	61
9 Plantations made during the Year ended 30th September, 1954— Summary by Conservancies	62
10 Summary of Species used for Planting and Beating Up	64
11 Summary Area Statement of Land Use: By Conservancies	65
Area Statements of Land Use: By Forests:—	
12 England	65
13 Scotland	70
14 Wales	74

MAPS

Outline Maps showing Distribution of Forests:	
England	76
Scotland... ..	82
Wales	86

Addresses of Main Offices of the Forestry Commission	88
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PHOTOGRAPHS

Following page

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THIRTY-FIFTH ANNUAL REPORT
OF THE
FORESTRY COMMISSIONERS
FOR THE YEAR ENDED
SEPTEMBER 30th 1954

MEMORIAL TO THE LATE LORD ROBINSON

On the 29th September 1953, the Chairman of the Commission unveiled a memorial to the late Lord Robinson, in the presence of Lady Robinson and her daughter the Honourable Mrs. Richey, Forestry Commissioners, officers of the Commission and representatives of the workers. The memorial, which is on the spot where the ashes of the late Lord Robinson were scattered in accordance with his wishes, is a simple cairn bearing a bronze plate with the following inscription:

“ To the Memory of Roy Lister Robinson, O.B.E.,
Baron Robinson of Kielder Forest and of Adelaide.
A Member of the Forestry Commission from its
inception in 1919, and its Chairman from 1932–1952.

Born 8th March, 1883

Died 5th September, 1952

His ashes are scattered in this forest, which owes
its existence to his creative energy and vision.”

GENERAL REVIEW

Forestry Commission Operations

PLANTING AND ACQUISITION OF LAND

In the story of progress towards the goal of 5 million acres of fully productive forests in Great Britain, Forest Year 1954 will be remembered as marking the peak—for the time being—of the Commission's planting. A total of 70,400 acres was achieved which was some 2,800 acres more than last year. Since the end of the last war the yearly rate of planting has been increased from 26,400 acres in 1947 to 70,400 acres in 1954, representing on average an increase in the amount planted annually of 6,300 acres each year.

In the last few years the yearly increase has been maintained only by materially reducing the reserves of land awaiting planting proportionate to the area actually planted. In 1947 the reserve stood at 13·6 times the annual planting programme; the figure for 1955 is only 4·6 times, and the reserve is not at all evenly distributed. So the point has been reached where the Commissioners have been forced to accept the unpalatable fact that after 1954 the annual planting programme will not only stop increasing, but will in fact fall. Though it marks a milestone it is small compensation that the planting to be done in 1955 will bring the Commissioners' forest area up to and beyond the 1,000,000 acre mark.

The reason for the future downward trend of planting programmes is a shortage of land. Since 1951, it is only in the present year that the area of plantable land acquired has exceeded the area planted, and that by only 6,700 acres, and an expanding planting programme cannot be maintained

without a considerable reserve and a steady intake of suitably distributed plantable land. The Commissioners have not been led by this temporary setback to consider any revision of their long term plans and are determined to do everything possible to return to the upward trend in planting. This can only follow a steadily increasing flow of acquisitions. There are large tracts of country, running into many hundreds of thousands of acres, the best use of which is undoubtedly forestry—including land densely infested with bracken, or derelict and semi-derelict woodland. It is hoped that this type of land will be more readily offered to the Commissioners by those owners who are unable to plant it themselves.

The trend of private planting goes on rising steadily, though slowly. Including estimates of areas planted without grants of any kind, private planting, at 19,100 acres, was 900 acres more than last year, and there should be no falling off in the future particularly as the obligation to replant, which has been a condition attached to most felling licences issued since 1951, begins to be implemented: the area in respect of which replanting conditions have been made to date amounts to over 50,000 acres.

If we include private afforestation, for which no figure was given in the programme in the White Paper of 1943 (Cmd. 6447),* private estates have come closer to their target than has the Forestry Commission; private estates achieved 77 per cent. and the Forestry Commission 64 per cent. of their programmes to date. Even so, it would be most welcome if there were a substantial increase in private planting.

ADVISORY PANEL ON THE HIGHLANDS AND ISLANDS

The Advisory Panel on the Highlands and Islands met the Chairman and certain members of the Commission in Inverness in September, 1954, to exchange views on the part that forestry might play in helping towards a solution of the crofting problem. The Commissioners were able to tell the Highland Panel that they accepted broadly the views and recommendations of the Report of the Commission of Inquiry into Crofting Conditions (Cmd. 9091, 1954. H.M.S.O.) with regard to forestry and that they were ready to increase afforestation as far as was practicable in the crofting counties. It was made clear by the Commissioners, however, that much of the land in these counties was unfit to grow trees, though recent research and experience has shown that some types of land once considered unplantable could now be afforested with reasonable assurance of success though growth would be slow. The serious difficulty over acquisition of land with which the Commissioners are faced was explained to the Highland Panel, and it is hoped the Panel may be able to use its influence to persuade owners of suitable land to offer it for planting.

PRODUCTION AND USE OF TIMBER

Production and consumption of home timber followed the same pattern as last year. It is estimated that the cut of broadleaved species was, if anything, less than in the previous year, due partly to the increasing difficulty of marketing the poorer qualities, and possibly to the abolition of softwood consumer licensing in November 1953. The continuing clearance of the Scottish windblow affected the general level of softwood production, but since the arrangements referred to in last year's Report worked smoothly, marketing was not significantly upset.

Mining Timber.—The Report of the Pitwood Working Party, whose formation was referred to last year, was presented to the Forestry Commissioners in August 1954. The main point that emerged was the inability of the Working

* *Post-War Forest Policy.* Report by H.M. Forestry Commissioners. 1943 (Cmd. 6447) H.M.S.O.

Party to devise a basis other than that of the present negotiation arrangements, for fixing prices, that was acceptable to all the interests represented. The most important recommendation relates to the comprehensive testing of home-produced peeled and seasoned softwood props especially with a view to collecting useful data on the possible relationship between rate of growth and quality as supports.

In England and Wales negotiations on prop prices between the Commission, private woodland owners and the home timber trade on the one hand and the National Coal Board on the other resulted in an agreement for 6 months from the 1st January 1954 at 4s. 9d. per cubic foot for peeled and seasoned props of all sizes, free on transport, subject to a limit of 35s. per ton recoverable carriage. This price showed a drop from the previous 6 months agreement of 3d. per cubic foot on top diameters of 4½ inches and upwards and no change on the smaller sizes. Negotiations in June led to a price for all sizes of 4s. 7½d. per cubic foot for the 12 month period from 1st July 1954 to 30th June 1955, subject to the same transport conditions.

Prices for home pitwood sold by weight to the National Coal Board's South-western Division also fell. From the 1st January to the 31st December 1954 there was a reduction in the price for softwood pitwood from 97s. 6d. per ton f.o.t. (subject to a limit of 30s. per ton recoverable transport charges) to 92s. 6d. per ton; laggings fell from 74s. to 70s. per ton, and the National Coal Board estimated that owing to changes in the Division's practice no price would be negotiated for broadleaved species as the Board intended to curtail and eventually stop the use of props of such species in that Division. In Scotland the agreement regarding material for use in the Scottish pits continued; this agreement which covers both round and sawn mining timber does not terminate until the end of June 1955.

The arrangements made between the Forestry Commission and the National Coal Board, under which assistance was given towards the cost of transport to England and Wales of certain mining timber, was continued.

Throughout the year acquisitions of home mining timber by the National Coal Board increased considerably compared with the previous year. Round mining timber showed a rise of one-fifth; sawn mining timber rose by about a half. The explanation lies largely in production from the Scottish windblow which accounted for a big increase particularly in softwood sawn mining timber.

There was a larger intake of home pitprops by the English collieries, due less to the windblow than to an increase in normal production. Whilst the round pitwood requirements of the National Coal Board are being met to an increasing extent from home sources, the proportion is still only about one-quarter of the estimated consumption over the country as a whole. In some localities, however, occasional difficulty has been experienced in placing supplies in the nearest convenient coalfield, due to production in certain sizes being in excess of current requirements.

Utilisation.—In the field of utilisation progress has been made with the saw-milling project in the Cowal district of Argyll, referred to in last year's Report. The sawmill of a standard Swedish type with a kiln drying plant was completed and commenced operations, but it was not in full production by the end of the year mainly on account of difficulty in getting suitable labour. This establishment while to some extent experimental as far as Great Britain is concerned is expected to give much useful information about the conversion and treatment of small-sized coniferous timber. It has been erected at Strachur, Argyll, a convenient centre for supplies from a very considerable area of young plantations.

Plans for the erection of a chipboard factory at Annan, Dumfriesshire, have been put in hand as a result of consultations and undertakings between growers and producers, and the firm, the Airscrew Company and Jicwood, Ltd. The Scottish Council (Development and Industry) played an important part in stimulating interest and in bringing this project to its present stage. Though the material to be used in the chipboard factory is similar to mining timber, the process is designed to use material too small or otherwise unsuitable for pitprops.

Investigations were started during the year into the practical possibility of pulp production from inferior and otherwise waste hardwood. The interest in the project, which is being pursued jointly by two British paper groups, lies in the southern part of the country where the main bulk of hardwoods is situated. The pulp and paper industry is showing a general interest in the development of pulping of home softwoods; ground woodpulp for newsprint and "kraft" pulp for wrapping and packaging are the chief objectives. The raw material requirements for such processes are less exacting in quality and quantity than in the case of dissolving pulp which is used largely in the manufacture of artificial fibre.

In all the investigations into possible new projects the Forestry Commission has an important part not only in assessing the general supply position but also in giving such assurances of actual supply as may be necessary to encourage the establishment of a new wood-using industry.

TESTS OF HOME-GROWN TIMBERS

During the year the Forest Products Research Laboratory continued work on a comprehensive series of tests on the timber of the main species being used for afforestation. The general plan is to test all important or potentially important species over the range of sites on which they are grown, consideration being given to factors of provenance of seed and silvicultural treatment such as intensity of thinning and pruning which may affect timber quality.

Tests have now been made on the timber of Sitka spruce from sites ranging from Devon and Sussex in the south to Argyllshire in the north. Other species to be included in this series of tests are Japanese larch, Norway spruce, Douglas fir, lodgepole pine (*Pinus contorta*), western red cedar (*Thuja plicata*) and western hemlock (*Tsuga heterophylla*).

STATISTICAL SUMMARY OF FORESTRY COMMISSION OPERATIONS

Table 1

FOREST YEAR 1953				FOREST YEAR 1954		
Great Britain...	...	53,600	Plantable land acquired (acres)	Great Britain	...	77,100
England	...	28,600		England	...	21,000
Scotland	...	13,400		Scotland	...	39,000
Wales	...	11,600		Wales	...	17,100
Great Britain	...	67,600	Total area planted (acres)	Great Britain	...	70,400
England	...	21,500		England	...	23,000
Scotland	...	34,300		Scotland	...	34,300
Wales	...	11,800		Wales	...	13,100
Great Britain	...	42,700	Afforested (acres)	Great Britain	...	43,000
England	...	11,500		England	...	11,700
Scotland	...	23,200		Scotland	...	23,400
Wales	...	8,000		Wales	...	7,900

FOREST YEAR 1953				FOREST YEAR 1954		
Great Britain	...	24,900	Replanted	Great Britain	...	27,400
England	...	10,000	(acres)	England	...	11,300
Scotland	...	11,100		Scotland	...	10,900
Wales	...	3,800		Wales	...	5,200
Great Britain	...	36,900	Area thinned	Great Britain	...	36,500
England	...	22,000	(acres)	England	...	21,300
Scotland	...	10,300		Scotland	...	10,000
Wales	...	4,600		Wales	...	5,200
Great Britain	...	339	Houses built	Great Britain	...	272
England	...	82	(number)	England	...	122
Scotland	...	172		Scotland	...	108
Wales	...	85		Wales	...	42
Great Britain	...	328	Motorable roads constructed	Great Britain	...	277
England	...	94	(miles)	England	...	73
Scotland	...	157		Scotland	...	160
Wales	...	77		Wales	...	44

Private Forestry

DEDICATION

Discussions with the United Kingdom Forestry Committee on amendments proposed in the Dedication deeds continued and at the end of the year the new form of deed of covenant for England and Wales had been accepted by the United Kingdom Forestry Committee, and the Scottish form of agreement was under consideration.

Progress continues to be made in the dedication of woodlands and during the year the area dedicated increased from 226,000 acres to 343,000 acres.

GRANTS

The Commissioners after consultation with the Forestry Committee announced increased planting and maintenance grants and also additional grants for planting in Approved Woodlands and for Scrub Clearance, with effect from 1st October 1953.

The grant payable for planting in Dedicated Woodlands and in woodlands coming within the Small Wood Scheme was increased from £14 to £15 per acre; the maintenance grant, applicable to Dedicated Woodlands only, was increased from 4s. 6d. to 5s. per acre.

The planting grant available to owners of Approved Woodlands, i.e. woodlands which, although not dedicated nor eligible for Small Woods Planting Grants, are managed in accordance with a Plan of Operations approved by the Commissioners, is at half the rate payable for planting in Dedicated Woodlands. The number of estates in the Approved Woodlands Scheme at the end of the year was 146 with woodlands extending to 44,400 acres; plans of operations covering an additional 60,000 acres were in course of preparation.

The amount of the new grant for Scrub Clearance is based on the net cost of clearing unproductive scrub and payment is dependent on the area being replanted and maintained. Applications covering the clearing of 574 acres had been received by the end of the year.

CO-OPERATIVE FORESTRY SOCIETIES

The Commission continues to encourage the formation of Co-operative Societies and to give all the assistance they can. During the year, two newly formed Societies in Wales—Flintshire Woodlands Society Ltd., which was first registered in May 1953, and Maldwyn Woodlands Ltd., registered in February 1954—have been given assistance by way of grants and guarantees against loss in their early formative years. There are now six Societies actively working in Wales. The older established Societies in England and Scotland continue to expand.

PLANTING IN PRIVATE WOODLANDS

The area planted by private owners during the year is estimated at 19,100 acres which includes 11,700 acres planted on dedicated estates. This shows an increase of 900 acres over last year.

THE FELLING QUOTA

Having regard to the amount of timber blown down by the gales of January 1953 still remaining to be cleared, the Commissioners, after consultation with the Home Grown Timber Advisory Committee, decided that no definite quota for Scotland either for broadleaved or coniferous species should be fixed for the year ending 30th September 1954. Restrictions on the issue in Scotland of licences for the clear felling of timber remained in force, but where the felling had been provided for in an approved Plan of Operations a licence was issued, and where the refusal of a licence would have seriously interfered with necessary silvicultural operations, special consideration was given.

The quotas for England and Wales were fixed as follows:—

	<i>Thousands of cubic feet</i>	
	<i>England</i>	<i>Wales</i>
Coniferous	2,085	340
Broadleaved	18,900	2,700

LICENSING

The number of applications for felling licences continues to show the downward trend reported last year, and although 91 per cent. of the quota for coniferous timber was taken up in England and Wales, the quantity of broadleaved timber licensed was only 83·5 per cent. of the quota.

Administration of the control and the issue of licences continues to work smoothly. Nearly 7,400 applications, including 530 brought forward, were considered and of these about 75 per cent. were in respect of felling in England. Applications outstanding at the end of the year totalled 500. The number of licences issued amounted to 6,400, and 130 refusal notices were issued, of which nearly half were for part only of the felling applied for. Applications voluntarily withdrawn numbered 350.

About 20 per cent. of all applications received were the subject of consultation with the local planning authorities and 45 applications were referred to them to be dealt with under the relevant Tree Preservation Orders.

Licences issued conditional upon the re-stocking and maintenance of the areas felled, amounted to 1,290 and covered 13,300 acres. In addition 170 felling licences were issued in respect of Dedicated estate; conditions cannot be applied to these licences but the 1,690 acres of clear felling they cover will be re-planted under the Plans of Operations in force. One case of complaint occurred which necessitated the appointment of a Reference Committee.

During the year under review there were 7 prosecutions for offences under the Act, 5 in England and 2 in Scotland. All cases were successful and the penalties imposed varied from £5 to £75.

Marketing of Woodland Produce

Discussions were held in the early part of the year between the Commissioners and the United Kingdom Forestry Committee to decide upon the scope of an enquiry proposed by the Committee into the problems facing private owners in the disposal of their produce. In April the Minister of Agriculture and Fisheries and the Secretary of State for Scotland appointed a Departmental Committee on Marketing of Woodland Produce under the Chairmanship of Mr. Hugh Watson, Deputy Keeper of the Signet, with the following terms of reference:

“ With the object of promoting confidence and stability, and bearing in mind both the output from Forestry Commission woodlands and the need to develop markets, to consider what measures might be taken within the home timber industry to improve the arrangements for marketing produce from privately owned woodlands; and to report ”.

Home Grown Timber Advisory Committee

During the year under review the Home Grown Timber Advisory Committee met in October 1953, and January, April and July, 1954. Apart from the annual felling quota for the year 1st October 1954 to 30th September 1955 and other matters arising out of the Forestry Act, 1951, the Committee were consulted on such matters as the sales and prices of pitprops, sales of Forestry Commission thinnings and the progress in disposing of windblow timber in Scotland.

Committee on Hedgerow and Farm Timber

In January 1953, the Minister of Agriculture and The Secretary of State for Scotland, on the recommendation of the Commissioners, appointed a Departmental Committee, to be known as the Committee on Hedgerow and Farm Timber.

The Chairman of the Committee is Lord Merthyr, T.D., and the terms of reference are:—

“ In view of the national need to promote timber production, to examine the extent to which the growth of hedgerow timber is compatible with good agricultural practice; and to make recommendations as to the best means of securing the planting and tending of hedgerow timber.”

The Committee was subsequently asked to regard these terms of reference as covering small farm spinneys, park timber and roadside trees.

The Committee has held eleven meetings (of which seven were within the year under report) to consider written evidence and hear witnesses, and has made several visits to different parts of the country. It is hoped that the Committee will report to the Commissioners in 1955.

Wages and Conditions of Industrial Employees

There was no change during the year in the minimum wage of 122s. per week for adult male forest workers in the Commission's employment or in the general conditions of service; the Commission's workers, however, became entitled from 1st October 1953 to the three days privilege holidays which are granted to industrial workers in the Government service generally. It should be noted that the Forestry Commission Industrial and Trade Council is

concerned with the wages and conditions of service of the Commission's employees only; for forestry workers on private estates these matters are regulated by the Agricultural Wages Boards.

Accounting

As recorded in our report for the year ended 30th September 1952 (H.C. 148, 1953, p. 18), the Parliamentary Select Committee which examined the Commission's Estimates in 1948/49 made the following recommendation in their report* :—

Paragraph 39 (2): “ An accounting system on commercial lines should be introduced in each Conservancy and the accounts of the Forestry Commission as a whole should be built up from these accounts ”.

After some experience of the operation of pilot schemes in two Conservancies an accounting system on commercial lines was introduced into all Conservancies on 1st April 1954. Although some time will elapse before the new system is fully in operation, the accounts of the Forestry Commission (published in the volume of Accounts and Balance Sheets of Trading or Commercial Services conducted by Government Departments) for the year ending on 30th September will be prepared under these new arrangements from the Conservancy accounts.

The Estimates for 1954/55 were submitted in a simplified form under subjective headings and the Appropriation Account for that year (ending 31st March 1955) will be compiled in a similar form.

Windblow in Scotland

Last year's Report covered in some detail the arrangements made for the clearance and marketing of the timber blown down in the gale of January 1953. The year now under report has been one of steady progress; the rate of clearance off the ground has exceeded two million cubic feet per month, and, though a re-survey raised the estimate of the volume blown from 47 million cubic feet to 51 million cubic feet, by the end of September 1954 only some 13 million cubic feet awaited extraction. As work has been concentrated so far as practicable on areas with a predominance of pine in which deterioration was likely to be more rapid, the more resistant species—hardwoods, larch and spruce—account for a substantial proportion of the timber remaining to be cleared. The blown timber for which no arrangements for clearance had been made, amounted to less than 200 thousand cubic feet, or about one-third of one per cent. of the total blown.

Transport assistance was continued; the scale of payments under these schemes was kept under review and representations by owners and merchants for increases were pressed. By the beginning of the winter of 1953 it became evident that an extra stimulus was necessary if the flow of sawlogs was to be raised and maintained at the desirable level. Accordingly on the 1st December 1953, the scale of transport assistance for sawlog transport was increased. A further increase, consequent upon an increase in rail freight charges, was made from the 1st March 1954, and at the same time the opportunity was taken to correct an anomaly that had arisen due to differing rates of assistance for different types of road transport.

Assistance was also given for the transport of mining timber from the windblow area to pits in England and Wales; and from the beginning of January 1954, mining timber produced in Scotland in mills outside the affected area from logs from the windblow qualified for assistance under the arrangements already current for mining timber from the area itself.

* *Sixteenth Report from the Select Committee on Estimates, Session 1948/49, H.M.S.O.*

The milling and marketing of produce from the windblow has gone reasonably smoothly. The flow of sawlogs from the area has not reached the proportions expected due partly to the different ideas of values between potential sellers and purchasers; as a result more of the timber has been milled locally.

The flow of mining timber to the National Coal Board Scottish Division up to the limits of their requirements proceeded smoothly throughout the year. Occasionally, mainly in individual cases, a hold-up occurred in disposing of surplus production in England but with the ready co-operation of the National Coal Board these difficulties were overcome.

The abolition of softwood consumer licensing in November 1953 did not have a serious effect on the marketing of windblow timber; markets held up well throughout the year and there were no signs of a slump.

With the end in sight of the clearing and disposal of the wind-thrown trees, it is useful to examine some of the general aspects of damage by gales. Damage from this cause is one of the normal hazards to which forests are subject, and the climate of Britain is one in which gales occur frequently with a general level of speeds higher than on the Continent of Europe. Gales causing some damage to forests occur on average every three to five years, but those of exceptional force causing damage on a large scale do not occur more frequently than once in 20 to 30 years, and then seldom in the same area. The last serious gale damage on many of the estates affected in 1953 took place in 1893, though some were affected by the gale of 1952.

An examination of the damage caused by the gale of 1953 brings out a number of points.

Type of Stand.—By far the greatest damage was done to semi-mature or mature crops of Scots pine. Younger woods less than about 40 feet in height were hardly affected but from this height upwards the incidence of damage increased sharply. There are few stands of irregular structure or age class and where these were in the main line of the storm their irregularity has not saved them.

Aspect.—As the gale at its worst came from the north-north-west, almost all the badly damaged woods are either on flat country or else on land with a northerly aspect sheltered from the usual south-westerly gales. Damage on south-facing slopes is extremely rare.

Species.—Of the conifers, Scots pine, the most extensively planted species in the area, suffered the greatest amount of damage. Old European larch also proved liable to windblow but in younger mixed crops of Scots pine and larch, the latter frequently suffered less than the pine. Norway and Sitka spruce on poorly drained sites were badly blown, but on firmer soils they frequently survived uprooting only to be snapped off.

Of the broadleaved trees beech suffered very badly; oak, though generally windfirm, was blown at a number of places; lime and sycamore proved to be resistant except when in the direct line of a high-speed gust.

Fire Risk.—The danger of accidental fire was great. Over an area of 10,000 acres scattered throughout the north-east of Scotland the fallen trees, lying like matchsticks spilled from a box, constituted a great hazard particularly as fire fighting would be extremely difficult in these woods as access was impossible on account of many rides and firelines being blocked. In addition, there was the risk of fire spreading to adjoining standing plantations. Special measures for detecting and dealing rapidly with any outbreak of fire were taken but fortunately the wet seasons of 1953 and 1954 effectively reduced the fire risk and, in the event, damage from fire was negligible.

Insects.—The windblown areas provided favourable conditions for the breeding up to epidemic proportions of various insect pests—notably the pine shoot beetle (*Myelophilus piniperda*), the pine weevil (*Hyllobius abietis*) and *Hylastes* beetles. In the case of *Myelophilus* there was a danger that large populations would breed in the blown trees and spread to standing living trees where they could cause serious and permanent crown malformation or even the death of the trees. Fortunately the increase has been less than was expected, largely because breeding was confined in 1953 to snapped trees since the blown trees continued to grow sufficiently to resist invasion. In 1954 breeding became much more general, most of the blown trees being by then too weak to resist attack, and crown feeding was evident in all localities and will probably increase in 1955 to become serious but not catastrophic.

Multiplication of *Hyllobius* and *Hylastes* has continued apace and there are indications that 1955 will be the peak year of the former. Thereafter the majority of the breeding sites will be exhausted by 1956, but replanting in most areas will probably be subject to damage until at least 1958. Research continues, however, on methods of protecting newly planted conifer crops from weevil attack.

Loss of Seed Stands.—Within the area in which the windblow occurred, a number of superior seed stands and outstanding individual (“plus”) trees of Scots pine had been selected in 1951 for tree breeding purposes. A considerable number of these trees were blown down by the storm, but during 1953 scions for grafting were collected from these and other plus trees in the neighbourhood so that material for breeding improved strains of this species is available.

Grey Squirrels

The Committee set up by the Commissioners in 1952 to study the grey squirrel problem has continued its activities. In co-operation with the Ministry of Agriculture, research has been pursued into the biology and ecology of this destructive animal in relation to ways and means of controlling its numbers.

Attention has been directed to methods of trapping as a valuable auxiliary to shooting. A leaflet, entitled *Traps for Grey Squirrels*, has been published and given a wide circulation among landowners and members of forestry societies.

The offer of 1s. for each grey squirrel killed has continued to meet with a considerable response. A total of 406,000 squirrels were destroyed compared with 263,000 in the previous year; while these numbers are substantial and encouraging, it is as yet difficult to assess the effect on the grey squirrel population as a whole, and the campaign should be continued.

The Grey Squirrel (Scotland) Committee has also been active in encouraging the destruction of this pest.

Gift of Land

Sir George Campbell of Succoth, Bt., has generously gifted his Forest Garden to the Commission. This Garden, situated at Crarae, Argyll, and extending to 30 acres, is probably unique in Scotland since it contains some 90 plots of different tree species, mostly conifers and many of them uncommon, growing under forest conditions. Most of the planting was done between 1933 and 1937 and the more rapid growing species are now approaching the thinning stage. Much useful information will be obtained from this Garden, not only about the suitability of the various species under forest conditions but also in regard to their timber.



Photo 6. A twenty-four year old oak plantation at Bere Forest, Hampshire.

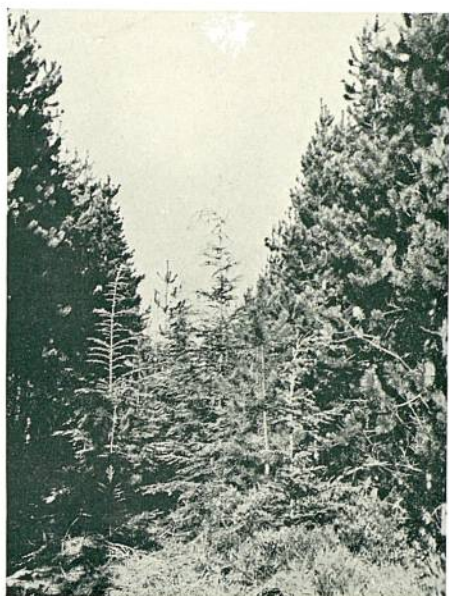


Photo 7. Experimental plantings at Teindland Forest, Morayshire, of two north-west American species of importance in British forestry. Western hemlock (*Tsuga heterophylla*) in centre; lodgepole pine (*Pinus contorta*) at sides.

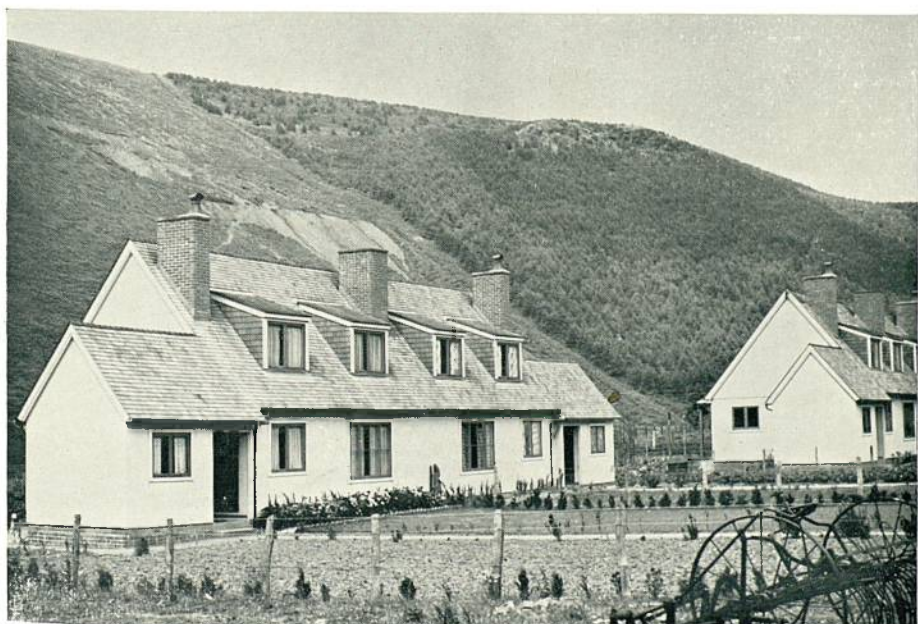


Photo 8. Forest workers cottages at Coed Morgannwg in the industrial region of South Wales.



Photo 4. Aeroplane spraying pine plantations at Cannock Chase, Staffordshire, to destroy the leaf-eating caterpillars of the Pine Looper Moth.

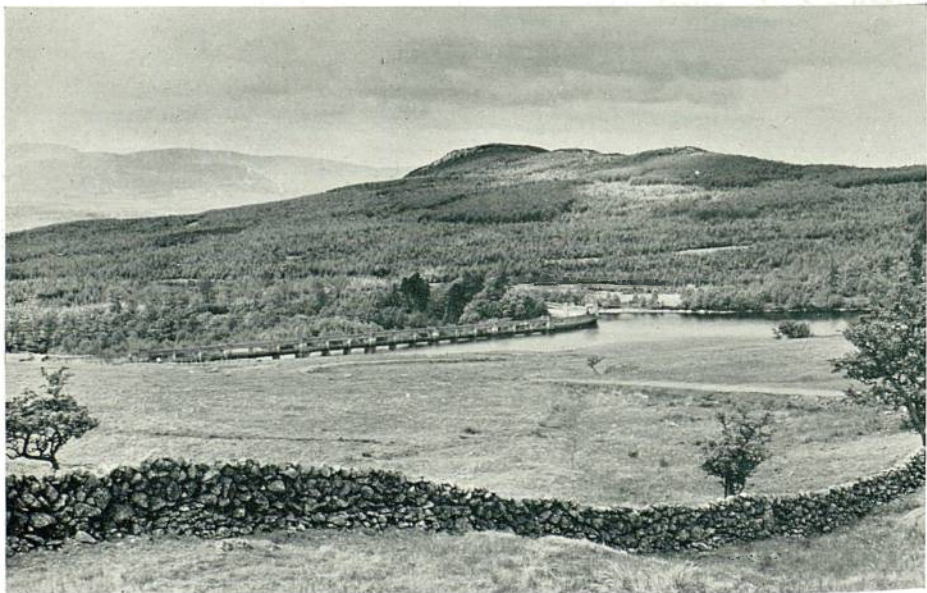


Photo 5. Dundegh Forest, Kirkcudbrightshire, seen across one of the dams of the Galloway Hydro-electric Scheme. These plantations of pine, larch and spruce were made between 1937 and 1938.



Photo 2. One of the Commission's research nurseries; Kennington nursery, near Oxford.



Photo 3. Pitprops from a thinning in a young conifer plantation; Glynn Forest, Cornwall.

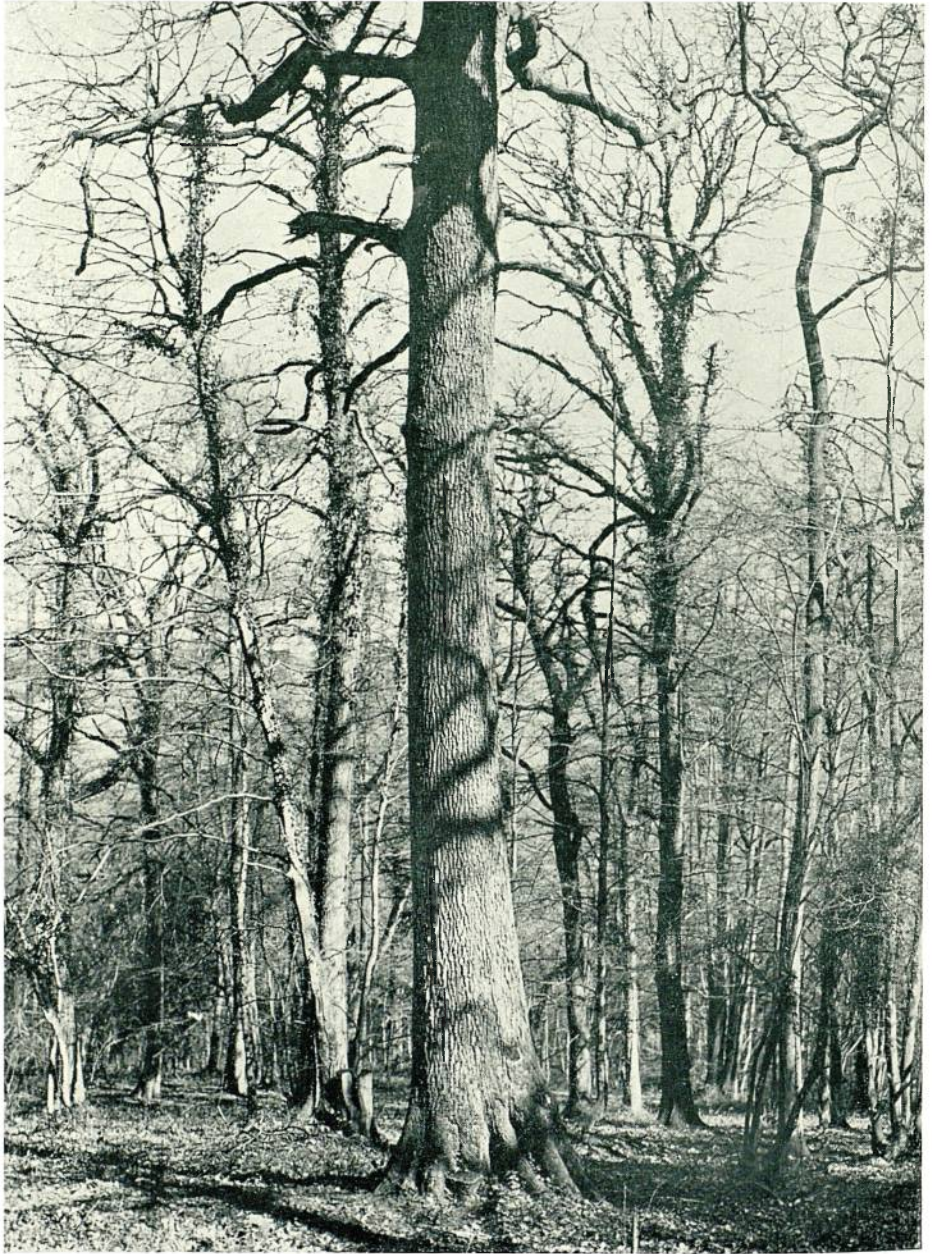


Photo 1. A fine sessile oak in the Highmeadow Woods, Monmouthshire, which has been selected for tree-propagation studies.

Forester Training Schools

During the year the Forester Training School in the Forest of Dean, Gloucestershire, the oldest of the five Schools maintained by the Commission, reached its 50th Anniversary. This School, which started in 1904 with some eight forest apprentices attending for one day a week, has continued to expand although there were interruptions during both world wars; it is now a residential School housing 57 young men who are given a two-year course of instruction in the theory and practice of forestry which fits them for subordinate posts at home and abroad. Since its inception over 700 men have passed through this School most of whom have taken up posts at home with the Commission and in private forestry, while a number have gone to forestry services abroad. From the five Forester Training Schools the out-turn of men who have completed the two year course has averaged 119 over the last three years.

Conferences and Visits Abroad

In October 1953, the Sixth Session of the European Forestry and Forest Products Commission of the Food and Agriculture Organisation of the United Nations was held in Rome. This was attended by Sir Henry Beresford-Peirse, Deputy Director General, and Mr. A. Watt, Conservator; as in the previous year, the Commission held a joint session with the Timber Committee of the Economic Commission for Europe to consider the report of a Joint Working Party on the study entitled "European Timber Trends and Prospects". Sir Henry Beresford-Peirse was also a member of the United Kingdom delegation at the Seventh Session of the full Conference of the Food and Agricultural Organisation held in Rome in November 1953.

In June 1954 discussions were held in Geneva which led to the constitution of F.A.O.'s Pilot Committee on Logging Techniques and the Training of Forest Workers being changed to that of a Joint E.C.E.-F.A.O. Working Party with the same terms of reference but with a wider range of membership; Mr. E. G. Richards, Utilisation Research Officer, who served on the Pilot Committee in 1953, represented the United Kingdom at these meetings. Mr. Richards also attended a meeting of the European Productivity Agency of the Organisation for European Economic Co-operation held in Paris in April 1954; this meeting resulted in the setting up of a mission to investigate and report on ways and means of reducing the extent of wood waste, and of making better use of waste.

Mr. R. F. Wood, Silviculturist, joined the United Kingdom delegation at the 21st Session of the Timber Committee of the Organisation for European Economic Co-operation which was held in Paris in December 1953.

The Permanent Committee of the International Union of Forest Research Organisations met in Nancy in September 1954, at which Great Britain was represented by Mr. James Macdonald, Director of Research and Education.

The Ninth Session of the Standing Executive Committee of the International Poplar Commission was held in Rome at the end of March 1954, and was attended by Mr. T. R. Peace of the Research Branch.

The annual meeting of the British Association for the Advancement of Science was held at Oxford in September 1954. Contributions to the deliberations of the Forestry Sub-Section were made by Mr. O. J. Sangar, Director of Forestry for England, Mr. M. V. Laurie, Chief Research Officer, Dr. Myles Crooke and Messrs. J. M. B. Brown, F. Courtier, J. N. R. Jeffers, A. D. Miller and R. F. Wood, officers of the Forestry Commission.

SUMMARY OF THE YEAR'S WORK

The closing months of 1953 were mild with less rain than usual and both forest and nursery work progressed well till interrupted by the onset of unusually cold weather with snow at the end of January and early February. The spring was marked by a very sunny and dry April after which there was a succession of cool sunless months with more than the average of rain till the end of the year. The persistent rain which hindered most forest work was generally favourable to tree growth but it also encouraged a strong growth of weeds in both nurseries and plantations.

Finance.—Payments and receipts for the forest years ended 30th September 1953 and 1954 were:—

	1953	1954
	£	£
Payments	9,421,426	10,373,211
Receipts	2,217,319	2,507,941

The amount paid into the Forestry Fund from Parliamentary Votes during the forest year ended 30th September 1954 was £7,850,000 made up of £3,800,000 from the Vote for the financial year ended 31st March 1954 and £4,050,000 from the Vote for the financial year ended 31st March 1955 (page 25).

Land Acquired.—The net area of plantable land acquired during the year was 77,149 acres, comprising 40,737 acres of bare land, 32,724 acres of felled or devastated woodlands and 3,688 acres of standing woods (Table 6, page 28.)

The total area of land at 30th September 1954 acquired through the Forestry Fund, under the Forestry (Transfer of Woods) Act, 1923, and by gifts, was 2,038,100 acres. This comprised 1,254,100 acres classed as "Forest Land" which is either already planted or will be planted in due course, and 784,000 acres of "Other Land" which includes nurseries, rough grazing and agricultural land, and other land unsuitable for tree planting. The areas of these categories in each of the three countries are given in Table 3, page 26.

New Forests.—Twenty-five new forests were started during the year: 8 in England; 9 in Scotland; 8 in Wales (page 27).

Forest Nurseries.—The area used for forest nurseries was 2,129 acres. The seed sown amounted to 218,044 lb. of broadleaved tree seed and 15,985 lb. of coniferous seed. Stocks of forest trees in nurseries totalled 505 million, 316 million being seedlings and 189 million being transplants (pages 30 to 36).

Forestry Commission Planting.—The area planted was 70,437 acres; this exceeds last year's planting by 2,800 acres and is the largest area of plantations made by the Commission in any year so far. 122·4 million trees were used to form these plantations and to replace failures in recently planted areas (pages 37 to 39).

Forest Protection.—Fires in or threatening Commission plantations totalled 1,344; of these, 94 per cent. were extinguished before causing damage to plantations. The area of plantations burned was 390 acres, the assessed damage, including cost of extinguishing, being £16,000 (page 39).

During the year 305,000 rabbits and hares were destroyed, also 43,900 grey squirrels and 4,600 foxes (page 41).

Aircraft were used to spray plantations being defoliated by caterpillars of the Pine Looper Moth (page 41).

Preparation and Sales of Produce

Thinning and Clear Felling.—Thinnings were made in 36,561 acres of young plantations. The area clear felled was 5,236 acres, of which 3,468 acres

consisted of scrub or devastated woodlands and 777 of coppice or coppice-with-standards (page 41).

Production and Disposal of Forest Products.—Out-turn amounted to 14·9 million cubic feet, of which 77 per cent. was derived from thinnings. Material sold or used for forest purposes totalled 13·9 million cubic feet. The main products were round timber and saw-logs, mining timber, fencing material, pulpwood and board-mill material, poles and firewood. The gross income from forest produce was £2,190,000; expenditure under the corresponding head of account was £1,258,000 (pages 42 and 43).

Licensing of Timber Felling.—6,386 licences were issued authorising the felling of 40,631,000 cubic feet of timber (page 43).

Roads.—Main extraction and feeder roads amounting to 277 miles were constructed in 174 forests (page 44).

Housing.—272 houses for workmen and local supervisors were completed; at the end of the year work was in progress on a further 191 houses (page 44).

The Dedication Scheme.—Dedication was completed by 253 estates in respect of 116,667 acres of woodlands; in addition, Plans of Operations for 172 estates covering 77,496 acres of woodlands had been agreed for Dedication (page 47).

Approved Woodlands.—93 estates with 26,321 acres of woodlands were accepted as Approved Woodlands (page 47).

Planting on Private Estates.—Private planting is estimated at 19,100 acres, of which 15,700 acres qualified for planting grants (page 48).

Research and Experiment.—Research work on a wide variety of forestry problems has been continued at the Forest Research Station, Alice Holt Lodge, Farnham, Surrey, and in experimental areas in many of the Commission's forests and nurseries (page 50).

Grants for forest research in specific fields have been made to Universities and other institutions; the main subjects of investigation have been forest soils and problems of forest tree nutrition (page 53).

Education.—The Commissioners maintain five Forester Training Schools at which 115 men completed the two-year course; 111 Forester Certificates and 4 Foremen Certificates were awarded. Of these men, 97 took up posts with the Commission, and 13 took forestry posts with other employers, while 5 went to other employment (page 54).

Three short courses for forest workers from private estates were given; 14 men attended each course and all qualified for certificates of efficiency. The scheme for the training of forest apprentices has been continued and extended (page 54).

Northerwood House in the New Forest has continued to be used for forestry educational purposes. Twenty-one courses of instruction, each lasting a week, were given; these included special courses for the Commission's staff, courses on forestry practice for landowners and agents, for County and National Park Planning Officers, for Officers of Local Authorities and for schoolteachers. In addition, university forestry students made considerable use of Northerwood House as a residential centre while studying forest management and silviculture in the New Forest (page 55).

Publications.—Fourteen new publications and eight revisions or reprints were issued (page 55).

Publicity and Public Relations.—Various aspects of forestry have featured in the Press and have been the subject of broadcast and television programmes. Nearly 200 talks were given by officers of the Commission to schools, youth organisations, Rotary Clubs and other bodies. Exhibits were provided at 15 of the major agricultural shows. Publicity for the Grey Squirrel campaign was maintained (page 56).

ORGANISATION

THE FORESTRY COMMISSIONERS

There was no change in the membership of the Commission during the year. The Chairman and Commissioners were as follows:

The Earl of Radnor, K.C.V.O. (*Chairman*).
Mr. J. M. Bannerman, O.B.E.
Lt.-Col. Sir Richard Cotterell, Bt., J.P.
Mr. A. P. F. Hamilton, C.I.E., O.B.E., M.C.
Mr. Stanley C. Longhurst, J.P.
Mr. John McNaughton, C.B.E.
Mr. Lloyd O. Owen, J.P.
Major John Stirling of Fairburn, M.B.E.
Mr. W. H. Vaughan, O.B.E., J.P.
Professor J. Walton, F.R.S.E.

Secretary to the Commissioners: Mr. H. A. Turner.

THE NATIONAL COMMITTEES

The three National Committees appointed in accordance with Section 3 of the Forestry Act 1945 met monthly (except in July) throughout the year. Changes as a result of resignations took place in the membership of the Committees for England and Wales; Major Charles Mitchell resigned from the Committee for England; Lt.-Col. Sir Richard Cotterell, Bt., Col. J. C. Wynne Finch and Professor R. Alun Roberts resigned from the Committee for Wales, to which Committee Mr. A. P. F. Hamilton, Mr. Richard Phillips and Major J. D. Gibson-Watt were appointed. No changes took place in the membership of the Committee for Scotland.

The members of each of the Committees at the end of the year are given below, the Chairman of the Forestry Commission being *ex officio* a member of each Committee.

THE NATIONAL COMMITTEE FOR ENGLAND

Lt.-Col. Sir Richard Cotterell, Bt. (*Chairman*), The Hon. James W. Best,
Mr. A. P. F. Hamilton, The Earl of Listowel, Mr. S. C. Longhurst.

Secretary to the Committee: Mr. E. S. J. Hinds.

THE NATIONAL COMMITTEE FOR SCOTLAND

Major John Stirling of Fairburn (*Chairman*), Mr. J. M. Bannerman,
Mr. John A. Cameron, The Earl Cawdor, Mr. John McNaughton,
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 J. D. Gibson-Watt, Mr. A. P. F.
Hamilton, Mr. David Lewis, Mr. R. Phillips, Mr. W. H. Vaughan.

Secretary to the Committee: Mr. E. R. Lewis.

THE REGIONAL ADVISORY COMMITTEES

The Regional Advisory Committees appointed in accordance with Section 15 of the Forestry Act 1951, have continued to meet at intervals.

Mr. A. D. C. Le Sueur and Mr. G. Ralph resigned from the Regional Advisory Committee for South-East England and for North Scotland respectively, otherwise the membership of the Committees remained throughout the year as given below.

ENGLAND

North-West.—Viscount Newport (*Chairman*), Alderman J. V. Allen, Mr. P. J. B. Clive, Mr. R. F. Dickinson, Mr. J. Edwards, Lt.-Col. E. D. Holder, Mr. G. R. Jacob, Mr. C. J. Venables. *Secretary to the Committee:* Mr. T. L. Eadie. The Committee met in April and July 1954.

North-East.—Lord Bolton (*Chairman*), Professor J. S. Allen, Mr. W. P. Hedley, Mr. A. Kirkup, Jr., Mr. A. M. Leitch, Mr. R. Minto, Jr., Mr. W. Robertson, Mr. R. Stanley, Col. W. St. A. Warde-Aldam. *Secretary to the Committee:* Mr. L. A. Chaplin. Meetings were held in December 1953, and in March, May and September 1954.

East.—Major Sir Richard G. Proby, Bt. (*Chairman*), Lt.-Col. M. E. St. J. Barne, Major R. L. Coke, Mr. N. D. G. James, Mr. R. W. B. Newton, Mr. G. Oates, Lt.-Col. E. R. Pratt, Mr. C. H. Thompson, Mr. R. B. Verney. *Secretary to the Committee:* Mr. G. H. Clark. The Committee met in December 1953 and in July 1954.

South-East.—Lt.-Col. H. S. Eeles (*Chairman*), Mr. A. E. Aitkins, Lt.-Col. W. R. Burrell, Mr. G. E. H. Calvert, The Rt. Hon. Viscount Cowdray, Mr. A. L. F. Hills, Mr. G. E. H. Palmer, Mr. W. H. Pearson. *Secretary to the Committee:* Mr. H. W. Gulliver. There were meetings in October 1953, and in January, April and July 1954.

South-West.—Mr. W. E. Hiley (*Chairman*), The Earl Bathurst, Mr. C. M. Floyd, Major H. T. H. Foley, Mr. J. R. Maeer, Mr. M. Philips Price, M.P., Mr. L. C. Wheeler, Lt.-Commander R. J. B. White, Brig. C. H. Woodhouse. *Secretary to the Committee:* Mr. A. W. Matthews. Meetings were held in December 1953, and in March, May and September 1954.

SCOTLAND

North.—Mr. G. Brown (*Chairman*), Mr. J. Armstrong, Major D. J. Brodie, Mr. A. Cumming, Mr. A. R. Mackenzie, The Earl of Moray, Mr. A. B. L. Munro-Ferguson, Brig. J. Willis-Fleming. *Secretary to the Committee:* Mr. M. Nicholson. The Committee met in December 1953, and in December 1954.

East.—Professor H. M. Steven (*Chairman*), Mr. A. Anderson, The Earl of Dundee, Lord Glentanar, Sir Ian Forbes Leith, Bt., Mr. W. Leven, Mr. W. E. Paterson, Bailie R. A. Raffan, Mr. W. Riddoch. *Secretary to the Committee:* Mr. J. P. Lenman. Meetings were held in November 1953, and in March and October 1954.

South.—The Earl of Haddington (*Chairman*), Sir James Hunter Blair, Bt., Mr. G. J. Cameron, Mr. J. C. Carson, Mr. W. P. Earsman, Commander D. Herries Maxwell, Mr. J. J. Patterson, Professor J. Ritchie. *Secretary to the Committee:* Mr. T. H. McGeorge. There were meetings in November 1953, and in February, May, and October 1954.

West.—Capt. J. Maxwell Macdonald (*Chairman*), Major D. C. Bowser, Sir George I. Campbell, Bt., Mr. P. Campbell, Capt. J. Craig, Professor J. Kirkwood, Mr. P. S. Murray. *Secretary to the Committee:* Mr. B. Kinnaird. The Committee met in July 1954.

WALES

North.—Col. P. R. Davies-Cooke (*Chairman*), Mr. P. S. Barnie, Alderman H. T. Edwards, Capt. G. L. Bennett Evans, Major W. D. D. Evans, Major J. M. Landers, Professor E. C. Mobbs, Mr. D. Tudor, Lt.-Col. J. F. Williams-Wynne. *Secretary to the Committee:* Mr. K. Mayhew. Meetings took place in December 1953, and in March 1954.

South.—Major J. D. D. Evans (*Chairman*), Mr. D. G. Badham, Mr. H. H. Busher, Mr. J. C. Deakin, Mr. I. G. Gordon, Mr. H. A. Hyde, Mr. J. E. Lewis, Mr. M. H. Maxwell, Lord Merthyr. *Secretary to the Committee:* Mr. E. H. Bradford. This Committee met in February, June, and October 1954.

HOME GROWN TIMBER ADVISORY COMMITTEE

This Committee met in October 1953, and in January, April and July 1954.

The term of the appointments to this Committee, which is constituted in accordance with Section 15 of the Forestry Act, 1951, expired on 7th September 1954; the appointments for the three years from 8th September 1954 are given below:—

- | | | |
|---------------------------------|--------|---|
| The Earl of Radnor | ... | Chairman, Forestry Commission
(<i>Chairman of the Committee</i>) |
| Mr. A. P. F. Hamilton | | } Forestry Commission |
| Mr. A. H. Gosling | | |
| Mr. O. J. Sangar | | |
| Mr. A. H. H. Ross | | |
| Mr. G. B. Ryle | | |
| Mr. J. Macdonald | | |
| Mr. H. A. Turner | | |
| Mr. J. Rea Price | | Board of Trade |
| Lord Bolton | | } Country Landowners Association |
| Major Sir Richard G. Proby, Bt. | | |
| Mr. W. E. Hiley | | |
| Mr. C. M. Floyd | | |
| The Earl Cawdor | | } Scottish Landowners Federation |
| The Earl of Dundee | | |
| Capt. J. Maxwell Macdonald | | |
| Major D. C. Bowser | | |
| Mr. G. R. Jacob | | } Federated Home Timber Association |
| Mr. C. J. Venables | | |
| Mr. H. N. Sadd | | |
| Mr. F. G. Chalke | | |
| Mr. T. Bruce Jones | | } Home Timber Merchants Association of
Scotland |
| Mr. Bruce B. Kennedy | | |
| Mr. J. C. McGregor | | |
| Mr. Bryan Latham | | Timber Trades Federation |

Secretary: Mr. H. R. Flowers.

DEPARTMENTAL COMMITTEE ON MARKETING OF WOODLAND PRODUCE

This Committee, to which reference is made on page 13, was constituted as follows:—

- Mr. Hugh Watson (*Chairman*), Mr. Harold Collison, Mr. J. T. Corbett, Mr. Norman French, Col. Sir Eric Gore-Browne, Sir Patrick Laird, The Hon. Charles Rhys, Professor H. M. Steven.

Joint Secretaries: Mr. M. L. David and Mr. E. G. Richards.

DEPARTMENTAL COMMITTEE ON HEDGEROW AND FARM TIMBER

This Committee, to which reference is made on page 13, was constituted as follows:—

The Lord Merthyr (*Chairman*), The Earl of Haddington, Mr. F. G. Chalke, Mr. N. D. G. James, Mr. J. Wallace Mann, Mr. A. D. C. Le Sueur and Mr. G. T. Williams.

Assessors: Mr. M. A. M. Dickie, Department of Agriculture for Scotland; Major E. S. Dobbs, Ministry of Agriculture and Fisheries; Mr. H.S. Keep, Ministry of Transport and Civil Aviation; Mr. R. H. Smith, Forestry Commission; Mr. E. H. T. Wiltshire, Ministry of Housing and Local Government.

Secretary: Mr. T. Farmer.

THE COMMISSIONERS' STAFF

PROFESSIONAL AND TECHNICAL STAFF

The organisation of the staff at the Headquarters of the Commission and in the Directorates remained substantially unchanged. The Director General and Deputy Director General have been assisted by the Directors of Forestry for England, Scotland and Wales, the Director of Research and Education, and the Chief Engineer. One change only took place in the officers holding these appointments; Mr. A. P. Long, C.B.E., Director of Forestry for Wales from 1st January 1946, retired on 26th May 1954 and was succeeded in this post by Mr. G. B. Ryle, a Conservator on the staff of the Director of Forestry for England.

The officers holding the above appointments at the close of the year are given below:

Director General: Mr. A. H. Gosling, C.B., F.R.S.E.

Deputy Director General: Sir Henry Beresford-Peirse, Bt., F.R.S.E.

Director of Forestry for England: Mr. O. J. Sangar, C.B.E., M.C.

Director of Forestry for Scotland: Mr. A. H. H. Ross, O.B.E.

Director of Forestry for Wales: Mr. G. B. Ryle.

Director of Research and Education: Mr. James Macdonald, C.B.E.

Chief Engineer: Major General H. P. W. Hutson, C.B., D.S.O., O.B.E., M.C.

The forest and estate staff comprised 18 Conservators, the Deputy Surveyor, New Forest, the Deputy Surveyor, Dean Forest, 39 Divisional Officers and 212 District Officers. One Divisional Officer was promoted to the rank of Conservator and 6 District Officers to the rank of Divisional Officer. In the District Officer grade, 16 appointments, including 3 promotions from Forester grade, were made, but owing to promotions this resulted in a net addition of only 10 District Officers.

The local supervision of forest work is carried out by Foresters and Foremen, most of whom have been recruited from men trained at one of the Commission's Forester Training Schools. The numbers in these grades at the end of the year were: Foresters, 659; Foremen, 309. There were also 20 Estate Clerks of Works.

The Engineer staff comprised 3 Directorate Engineers, 1 Machinery Research Officer, 1 Planning Officer, 3 Mechanical Engineers, 10 Conservancy Engineers, 24 Assistant Engineers and 33 Clerks of Works.

ADMINISTRATIVE, EXECUTIVE AND CLERICAL STAFF

At the Headquarters of the Commission, the Secretary's staff consisted of 2 Principals, a Deputy Establishment Officer, a Principal Information Officer, 13 officers of the rank of Higher Executive Officer and above, and 48 other Executive and Clerical Officers.

The Controller of Finance had a staff of 11 officers of the rank of Higher Executive Officer and above, and 33 other Executive and Clerical Officers.

The staff attached to the offices of the Directors of Forestry, the Director of Research and Education and the Conservators comprised 45 officers of the rank of Higher Executive Officer and above, and 461 other Executive and Clerical Officers.

LABOUR EMPLOYED

The number of men, women and juveniles employed at 30th September 1954 was 13,621, of whom 5,314 were in England, 5,071 in Scotland and 3,236 in Wales. The number at the end of the previous year was 13,200.

THE YEAR'S WORK

THE FORESTRY FUND

The Forestry Fund was established by the Forestry Act, 1919. From this Fund is defrayed all the expenditure of the Commissioners, and into it are paid their receipts from sales of produce, rentals, etc., together with the amounts drawn against the annual Parliamentary Vote. Any balance of a Vote not required during the year for which it was voted may not be drawn into the Forestry Fund, but the Commissioners are permitted to carry forward a small working balance to the next Financial Year.

In Table 2 below are shown the drawings during each Forest Year and also the balance remaining in the Forestry Fund at the 30th September (the end of the Forest Year).

FORESTRY FUND—SUMMARY

Table 2

Year ended 30th September

£

	Balance from Preceding Year (1)	Receipts			Payments (Appendix 1) (5)
		Total (2)	From Parliamentary Votes (3)	From Forestry Operations, etc. (Appendix 1) (4)	
GRAND TOTAL. 1920-1954 ...	—	82,973,801	62,436,800	20,537,001	82,776,691
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
1940-49	—	26,370,778	18,945,000	7,425,778	26,238,789
1950	240,014	7,030,748	5,495,000	1,535,748	7,025,414
1951	245,348	8,161,846	6,350,000	1,811,846	8,012,098
1952	395,096	9,258,033	6,893,000	2,365,033	9,277,642
1953	375,487	9,258,319	7,041,000	2,217,319	9,421,426
1954	212,380	10,357,941	7,850,000	2,507,941	10,373,211
1955	197,110	—	—	—	—

The amount drawn from Parliamentary Votes into the Fund during the Forest Year to 30th September 1954, was £7,850,000, made up of £3,800,000 from the Vote for the Financial Year ended 31st March 1954, and £4,050,000 from the Vote for the year ending 31st March 1955. Receipts from Forestry Operations, etc. amounted to £2,507,941, an increase of £290,622 compared with last year, and payments to £10,373,211, an increase of £951,785.

In comparing expenditure with that of the previous year it should be kept in mind that the wage rate for adult men workers was increased in August 1953 from 115s. to 122s. per week, with proportionate increases for other workers.

Financial Tables.—In Appendix 1, page 58, are given the payments, analysed by major heads of account, and the receipts from Forestry Operations, etc. Appendix 2, page 58, is a statement of expenditure and income. In this table amounts due to or by the Commissioners at the end of the Forest Year have been brought to account; salaries and office charges, which are shown separately in Appendix 1, are distributed over the heads to which they are appropriate; income from Forestry Operations, Education, etc., is shown

separately, and adjustments have been made between heads of account in respect of transactions not reflected in the cash accounts, such as the value of produce used for forest purposes.

In Appendices 3 to 8, pages 59 to 61, expenditure and income under the heads shown in Appendix 2 are given in greater detail.

ACQUISITION AND UTILISATION OF LAND

The total area of land acquired through the Forestry Fund, under the Forestry (Transfer of Woods) Act, 1923, and by gifts from private persons, less disposals, was 2,038,100 acres at 30th September 1954. In most acquisitions of land it is unavoidable that in addition to plantable land there is included some rough grazing and agricultural land which it is not intended to plant, and also land unsuitable for planting on account of soil conditions, exposure or other reasons. Table 3 below gives the present or intended future use of the land so far acquired.

UTILISATION OF LAND

Table 3

At 30th September 1954

Thousand acres

	Great Britain	England	Scotland	Wales
Total Acquired	2,038·1	646·6	1,117·1	274·4
Forest Land: Total	1,254·1	484·1	555·9	214·1
Acquired Plantations	78·9	50·7	21·9	6·3
Planted by Forestry Commission	856·8	327·9	369·0	159·9
To be planted	318·4	105·5	165·0	47·9
Other Land: Total	784·0	162·5	561·2	60·3
Nurseries	2·1	0·8	0·9	0·4
Rough Grazing and Agricultural Land	489·9	70·7	372·6	46·6
Forest Workers Holdings	12·7	6·7	3·7	2·3
Unplantable and Miscellaneous	279·3	84·3	184·0	11·0

This table shows that of the 2,038,100 acres acquired to date, 1,254,100 acres are Forest Land comprising 935,700 acres of plantations and 318,400 acres of land to be planted in due course. The land awaiting planting which is partly bare land and partly old woodland, is held in the three countries as follows:—England, 105,500 acres; Scotland, 165,000 acres; Wales, 47,900 acres. It should be noted that all land shown as to be planted is not immediately available, and that as much as possible is let for grazing until it is actually required. Land which it is not intended to plant is shown under Other Land; this includes 502,600 acres of rough grazings and agricultural land, and 279,300 acres of land unsuitable for planting.

Land not placed at the disposal of the Commissioners

The statement of areas given in the previous table includes land under the management of the Ministry of Agriculture and the Department of Agriculture for Scotland. Details of this land are given below.

LAND NOT PLACED AT THE DISPOSAL OF THE COMMISSIONERS

Table 4

At 30th September 1954

Acres

	Great Britain	England	Scotland	Wales
Total ...	351,356	58,746	255,225	37,385
Forest Land ...	45,134	2,666	39,082	3,386
Rough grazing, agricultural and miscellaneous ...	306,222	56,080	216,143	33,999

The acreage of land in the charge of the Agricultural Departments at the end of the Year was 351,356 of which 45,134 acres will be transferred to the Commissioners for planting in due course.

Number of Forests

There are now 479 forests, a total of which includes a small number of central nurseries which have little or no woodlands attached. The numbers in each of the three countries are given in Table 5 below. The individual forests are listed by Conservancies in Appendices 12 to 14 on pages 65 to 75, and their approximate positions are shown on the Conservancy maps on pages 76 to 87.

NUMBER OF FORESTS

Table 5

At 30th September 1954

	Great Britain	England	Scotland	Wales
Number of Forests:—				
At beginning of year ...	462	193	193	76
At end of year ...	479	199	201	79
Net increase during the year ...	17	6	8	3

Twenty-five new forests, of which three were previously parts of older forests, were started during the year; as a result, however, of regroupings the increase is reduced by 8 to 17; details of these changes are given below.

NEW FORESTS

ENGLAND:

Aconbury, Hereford.
 Blengdale, Cumberland (formerly part of Ennerdale).
 Buscott, Berks.
 Hambleton, Yorks.

Moccas, Hereford.
 Walton Woods, Cumberland.
 Weardale, Durham.
 Westerham, Kent.

SCOTLAND:

Ardfin, Isle of Jura.
 Clydesdale, Lanark.
 Dalmally, Argyll.
 Dunnet, Caithness.
 Elchies, Moray.

The Garraries, Kirkcudbright.
 Garshelloch, Stirling.
 Saltoun, East Lothian.
 Tighnabruaich, Argyll.

WALES:

Ceiriog, Denbigh.
 Cilsant, Carmarthen.
 Gower, Glamorgan.
 Hensol, Glamorgan (formerly part
 of Llantrisant Forest).

Machen, Monmouth.
 Nethergwent, Monmouth.
 Pencerrig, Radnor.
 Penllergaer, Glamorgan (formerly
 part of Rheola Forest now
 merged in Coed Morgannwg).

In England, Clipstone Forest now forms part of Sherwood Forest, while Watlington and Wendover Forests together are now known as Chilterns, and Highclere has been renamed Pen Forest. In Scotland, Tinnisburn Forest is merged with Newcastleton Forest. In Wales, Cwmeinion Forest and Coed Taliesin now form Taliesin Forest, and Cwmogwr, Dunraven, Margam, Michaelston and Rheola Forests have been merged to form Coed Morgannwg.

Land acquired during the year

The area of land acquired, including land to which entry was secured prior to the legal procedure being completed, amounted to 140,434 acres, of which 79,457 acres are classed as plantable. Disposals and adjustments totalled 11,646 acres, made up of 2,308 acres classed as plantable, 8,098 acres classed as unplantable and 1,240 acres of grazing and agricultural land.

The net addition of plantable land was thus 77,149 acres, details of which are given in Table 6 below:—

PLANTABLE LAND ACQUIRED DURING THE YEAR
 [NET AREA]

	Total	Bare Land	Land previously under a Tree Crop	Standing Woods
Great Britain	77,149	40,737	32,724	3,688
England	21,061	7,155	12,690	1,216
Scotland	39,010	26,388	11,441	1,181
Wales	17,078	7,194	8,593	1,291

The net addition of 77,149 acres of plantable land is made up of 40,737 acres of bare land (53 per cent.), 32,724 acres of felled or devastated woodlands (42 per cent.) and 3,688 acres of standing woods (5 per cent.). Compared with the previous year there has been an increase of 23,514 acres of plantable land, and small changes in the relative proportions of the types of land acquired have taken place; the proportion of bare plantable land increased by 11 per cent. while the proportions of old woodland and standing woods decreased by 9 per cent. and 2 per cent. respectively.

Notwithstanding the increase in the area of plantable land acquired during the year, the Commissioners, as stated earlier in this report (page 7) are greatly concerned at the relatively small reserves of land available for planting.

Progress of acquisition of Plantable Land

The acreage of plantable land acquired from 1920 onwards is given below:—

ACQUISITION OF PLANTABLE LAND

Table 7

Year ended 30th September

Acres

Period				Total	By Lease or Feu	By Purchase
Total 1920-1954				1,212,209	410,397	801,812
1920-29				310,230	156,759	153,471
1930-39				344,757	60,057	284,700
1940-49				255,725	81,536	174,189
1950				60,996	26,423	34,573
1951				56,113	24,624	31,489
1952				53,604	15,718	37,886
1953				53,635	20,742	32,893
1954				77,149	24,538	52,611

Land acquired to date

Table 8 presents a summary statement of land acquired to date classified into Plantable Land (including land already planted before acquisition) and Other Land. This table also shows separately the amounts acquired by lease or feu, and by purchase. The heading Entry Secured relates to properties in which work was able to start although the legal procedure had not actually been completed.

SUMMARY STATEMENT OF LAND ACQUIRED*

Table 8

At 30th September 1954

Acres

	Total	By Lease or Feu			By Purchase		
		Total	Plant-able†	Other	Total	Plant-able†	Other
Total:							
Great Britain	1,918,017	581,127	410,397	170,730	1,336,890	801,812	535,078
England ...	544,343	209,518	185,510	24,008	334,825	265,529	69,296
Scotland ...	1,104,579	280,370	150,628	129,742	824,209	396,385	427,824
Wales ...	269,095	91,239	74,259	16,980	177,856	139,898	37,958
Acquisitions completed:							
Great Britain	1,874,171	550,042	393,964	156,078	1,324,129	789,780	534,349
England ...	535,890	205,026	181,170	23,856	330,864	261,672	69,192
Scotland ...	1,070,841	255,377	140,019	115,358	815,464	388,265	427,199
Wales ...	267,440	89,639	72,775	16,864	177,801	139,843	37,958
Entry Secured:							
Great Britain	43,846	31,085	16,433	14,652	12,761	12,032	729
England ...	8,453	4,492	4,340	152	3,961	3,857	104
Scotland ...	33,738	24,993	10,609	14,384	8,745	8,120	625
Wales ...	1,655	1,600	1,484	116	55	55	—

* 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.

Of the total of 1,918,017 acres acquired, 1,212,209 acres were classified at the time of acquisition as plantable land, of which 451,039 acres (37 per cent.) are in England, 547,013 acres (45 per cent.) in Scotland and 214,157 acres (18 per cent.) in Wales. The classification of land at the time of acquisition is of course varied in the light of experience, local developments and other factors, and the present or intended use of land as at 30th September 1954 is given in Table 3 on page 26.

Expenditure during the year in connection with the purchase and lease of land was £589,000. The main heads of this expenditure are as follows:

	£
Purchase of land, including buildings and standing timber...	525,500
Rents and feu duties	56,000
Redemption of tithes	7,500
Total	589,000

In the above statement, under "Purchase of land, including buildings and standing timber" is included the purchase of buildings and standing timber on land acquired by lease as well as by purchase. In the year under review the amounts in respect of buildings and standing timber were £77,000 and £248,000 respectively. 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 was secured pending financial settlement. The average price paid during the year for plantable land, excluding any timber and buildings, was £3 2s. 6d. per acre; the average rent paid for plantable land was 2s. 8d. per acre.

Sales of land and buildings amounted to £39,000 (Appendix 3, page 59).

CULTURAL OPERATIONS

Cultural operations include works necessary for the formation, maintenance and protection of plantations. These operations are discussed below under Forest Nurseries, Plantations, and Protection. Under Forest Nurseries are included the collection and supply of seed, and the raising of the young trees required for planting out. Plantation work comprises fencing, clearing of ground, ploughing, draining and the actual planting of the trees, also the after-attention which must be given to the plantations, namely, weeding and beating-up, and the maintenance of fences, drains, etc. Protection includes measures to safeguard plantations from damage by fire, and also measures against injurious animals, insects and fungi in plantations and nurseries.

Expenditure on cultural operations amounted to £2,860,000, an increase of £281,000 compared with the previous year; this increase is analysed as follows:—in respect of preparatory work and planting £137,000, in respect of establishment and maintenance of plantations £42,000, while nursery work and protection both increased by £51,000.

Forest Nurseries

Seed Supply

The Commissioner's policy is to collect from their own woods and, by arrangement with owners, from private woodlands, as much as possible of the seed required. The amount of seed produced varies from year to year but it is usually possible to meet from home sources most of our requirements of the broadleaved species such as oak, ash, sycamore and beech; the beech crop, however, is intermittent and as in the present year it is frequently necessary to get additional supplies from the Continent. As regards the conifers, Scots

pine is the only important home-grown species which can be relied on to provide all our requirements, and until more of our own plantations of other species reach seed-bearing age it is necessary to import considerable quantities of other coniferous seed from suitable localities abroad.

Home Collected Seed:—Over most of the country the conifer seed crop was generally poor, and the quantity of cones collected was on a level with last year's when the crop was also less than usual. There were, however, good crops of cones in some districts; Scots pine gave a good crop in east and south Scotland and in East Anglia; Douglas fir and the silver firs coned well in Scotland but, except for some *Abies grandis* in North Wales, elsewhere these crops were poor. In all 5,461 bushels of cones were collected and at the Commission's seed extraction stations 3,261 lb. of seed were obtained from 5,447 bushels of cones.

The collection of broadleaved tree seeds amounted to 262,945 lb., which was just below that of the previous year, and, except for additional beech and special requirements of sessile and red oak obtained from the Continent, we were able to meet our requirements from home sources. The crop of ash seed was good; in England acorns were plentiful in the east, south and south-west, but elsewhere in England the crop was poor to moderate; in Scotland and Wales the crop was generally good. Sycamore was plentiful and Spanish chestnut was good in the south. Beech for the third year in succession was poor, and except for parts of south-east and east England where 10,422 lb. were collected, and in Scotland where 2,256 lb. were collected, little was available.

Details by species of the amounts collected from coniferous and broadleaved trees are given in Tables 9 and 10 below.

HOME COLLECTION OF CONIFER SEED

Table 9 Year ended 30th September 1954

	Cones Collected					Cones kilned	Seed extracted
	Total	England	Scotland	Wales	Research		
	Bushels					Bushels	lb.
Total	5,461	534	4,710	203	14	5,447	3,261
Scots Pine	2,865	314	2,551	—	—	2,936	1,247
Corsican Pine ...	10	—	10	—	—	10	2
European Larch	423	24	399	—	—	429	259
Japanese Larch	28	—	28	—	—	30	12
Norway Spruce	31	1	30	—	—	20	5
Sitka Spruce ...	25	3	22	—	—	25	6
Other Conifers...	2,079	192	1,670	203	14	1,997	1,730

HOME COLLECTION OF BROADLEAVED SEED

Table 10 Year ended 30th September 1954 lb.

	Total	England	Scotland	Wales	Research
Total	262,945	242,626	9,090	11,093	136
Ash	806	359	225	215	7
Beech	12,717	10,442	2,256	15	4
Oak	239,683	225,268	4,864	9,471	80
Sycamore	1,027	203	635	176	13
Spanish Chestnut	3,855	3,611	12	217	15
Other broadleaved trees	4,857	2,743	1,098	999	17

Imports of Seed:—The Commission has continued to make bulk imports of seed of a number of species to cover trade and private needs as well as the Commission's own requirements. Details of the seed imported by the Commission during the year are given in Table 11 below. With the exception of Douglas fir and *Tsuga heterophylla*, most species were readily available; in the case of Douglas fir the crop was poor for the third year in succession and though enough seed was obtained to meet our immediate needs the scarcity of this seed was reflected in its price; *Tsuga heterophylla* as usual was difficult to obtain; it was also a poor year for Corsican pine seed, but as we held a good reserve this caused no difficulty. Supplies of seed of *Abies grandis* and *A. procera* were good and considerable quantities were purchased. European larch of acceptable origin was in fair supply and sufficient seed of this species and of Japanese larch was available. Our requirements of lodgepole pine (*Pinus contorta*) and Sitka spruce were also met.

Imports of broadleaved tree seeds comprised sessile oak from Germany, red oak from Holland, a considerable quantity of beech seed from Germany and a smaller quantity from Holland. Small quantities of other species including walnuts from France were also purchased.

Table 11
IMPORTED SEED
Year ended 30th September 1954

Species	Quantity (lb.)	Origin
All Species: Total	90,811	—
Coniferous: Total	13,379	—
Pinus contorta	750	Oregon, U.S.A. and British Columbia
Pinus radiata	20	New Zealand
Pinus peuce	55	Macedonia
Pinus ponderosa	52	California, U.S.A.
European larch	40	Austria
Larix decidua var. silesiaca	800	Czechoslovakia
Larix decidua var. polonica	22	Poland
Japanese larch	3,000	Japan
Douglas fir	2,000	Washington and Oregon, U.S.A.
Norway spruce	250	France
Norway spruce	250	Austria
Sitka spruce	800	British Columbia
Abies grandis	3,000	Washington, U.S.A.
Abies alba	50	France
Abies concolor	45	Colorado, U.S.A.
Abies nordmanniana	113	Italy
Abies procera	1,450	Oregon, U.S.A.
Tsuga heterophylla	35	British Columbia
Thuja plicata	154	British Columbia
Sequoia sempervirens	100	California, U.S.A.
Sequoia wellingtonia	17	California, U.S.A.
Cryptomeria japonica	114	Japan
Cupressus macrocarpa	50	France
Other conifers	212	Various
Broadleaved: Total	77,432	
Oak	4,480	Germany
Red oak	21,280	Holland
Beech	49,280	Germany
Beech	880	Holland
Beech	1,120	Austria
Walnut	128	France
Other broadleaved species	264	Various

Sales of Seed:—The quantities of conifer seeds sold to the trade and to woodland owners was in line with the previous year's sales with the exception of Douglas fir of which the quantity was considerably less presumably on account of its high price. There was a considerable drop in requests for broadleaved tree seed, principally acorns and Spanish chestnuts. Comparative figures by species for 1953 and 1954 are given in Table 12 below.

SALES OF SEED

Table 12

Year ended 30th September

lb.

Species	Total		Sold to			
			Nursery Trade		Woodland Owners	
	1953	1954	1953	1954	1953	1954
All species: Total	25,417	5,802	22,661	4,317	2,756	1,485
Coniferous: Total... ..	3,511	2,845	3,339	2,693	172	152
Scots pine	200	205	163	198	37	7
Corsican pine	309	269	299	246	10	23
European larch	103	104	89	92	14	12
Japanese larch	1,264	1,151	1,236	1,128	28	23
Douglas fir	683	145	668	123	15	22
Norway spruce	132	157	107	136	25	21
Sitka spruce	622	545	605	520	17	25
Pinus contorta	115	57	113	55	2	2
Abies grandis	—	127	—	120	—	7
Other conifers	83	85	59	75	24	10
Broadleaved: Total	21,906	2,957	19,322	1,624	2,584	1,333
Oak	20,444	2,026	17,866	1,176	2,578	850
Beech	—	114	—	112	—	2
Spanish chestnut	1,462	—	1,456	—	6	—
Other broadleaved species	—	817	—	336	—	481

Nursery Work

The main nursery operations take place during open weather throughout winter and spring; young trees fit for planting out in the forest are lifted and despatched, seedlings are transplanted and new seed beds are sown. During the summer months, weeding is the principal work requiring attention. Nursery operations more than most forestry work are at the mercy of the weather and the year under review has been remarkable for inclement weather. The winter work went on normally under mild conditions till the turn of the year when a hard spell with snow interrupted work in most parts of the country. This delay caused lining out and seed sowing to extend into a dry spell in April, but subsequent showery to wet weather prevented losses from drying out being serious. The remainder of the year, with a succession of wet months, so encouraged weed growth that it was a constant struggle to prevent the small seedlings and transplants from being suppressed. The use of selective weed-killing oil sprays on seed beds before the emergence of the tree seedlings aided

greatly in preventing the weeds getting out of control. The new seed beds germinated well, but the cool sunless summer was not particularly favourable for growth in the forest nurseries; the effect was more evident on the seedlings than on the transplants.

Nursery Area:—The area under forest nurseries was increased slightly. The policy of giving up unsatisfactory agricultural-type nurseries has been continued, and the practice of raising seedlings on cultivated heathland and woodland sites, which has the advantage of giving an almost weed-free seed bed for the first few years, has been extended. The area under nurseries at the end of the year was 2,129 acres, of which 375 acres are classed as heathland nurseries.

Use of Nursery Ground:—A rotation of cropping is observed in the nurseries and of the total area of 2,129 acres, 388 acres (18 per cent.) were under seedbeds, 710 acres (34 per cent.) under transplant lines, and 623 acres (29 per cent.) in fallow or under green crop. These proportions show very little change from last year. Details by Conservancies are given in Table 13, page 35.

Seed Sown:—There were increases compared with last year of 17 per cent. and 8 per cent. respectively in the amounts of conifer and broadleaved tree seeds sown in the Commission's nurseries. The total amount of conifer seed sown was 15,985 lb.; the major increases were in respect of Scots pine, *Pinus contorta*, Japanese larch, and *Abies grandis*. The species of which there were marked decreases were Norway spruce and *Tsuga heterophylla*; the seed of the latter, as previously noted, was very scarce. The quantity of broadleaved tree seeds sown was 218,044 lb., the bulk of this being acorns; considerably more beech, purchased abroad, was sown, but there were smaller sowings of both home-collected and imported acorns; considerably less Spanish chestnut was sown.

Comparative figures of sowings for 1954 and the two preceding years are given in Table 14, page 35.

Stocks of Seedlings and Transplants:—At the end of September the nurseries held 189 million transplants and 316 million seedlings; the number of transplants is 2 million less, while seedlings are just over 36 million more than in the previous year. Comparative figures for the two previous years are given in Table 15, page 36.

Sales of Nursery Stock:—Sales of surplus seedlings and transplants to the nursery trade for lining out or for resale to woodland owners were just over 5½ million as compared with 8 million in the previous year. Details by species are given in Table 16, page 36.

Expenditure:—Expenditure on nurseries, including the purchase and collection of seed, was £517,000.

Receipts from sales of seed and surplus nursery stock brought in £29,000 which is included under Income from Forest Produce. See Appendix 3, page 59.

USE OF NURSERY GROUND

Table 13

At 30th September 1954

Acres

	Total	Seedbeds	Transplant Lines	Fallow and Green Crops	Other
GREAT BRITAIN	2,129	388	710	623	408
<i>Percentage of total area...</i>	100	18	34	29	19
ENGLAND: Total	768	148	262	241	117
Conservancy:					
North West	174	20	58	56	40
North East	160	19	75	48	18
East	151	39	46	46	20
South East	91	23	34	20	14
South West	103	29	27	35	12
New Forest	61	10	14	29	8
Dean Forest	28	8	8	7	5
SCOTLAND: Total	893	145	286	251	211
Conservancy:					
North	222	44	62	89	27
East	209	34	56	43	76
South	247	41	98	58	50
West	215	26	70	61	58
WALES: Total	436	91	153	120	72
Conservancy:					
North	230	53	79	58	40
South	206	38	74	62	32
Research Nurseries	32	4	9	11	8

SEED SOWN IN NURSERIES

Table 14

Year ended 30th September

lb.

	1952	1953	1954
TOTAL SEED SOWN			
Great Britain	155,003	214,497	234,029
England	98,009	140,973	157,196
Scotland	12,739	15,825	24,080
Wales	43,338	57,420	51,829
Research Nurseries	917	279	924
CONIFEROUS SEED			
Great Britain	15,436	13,718	15,985
England	4,870	3,919	4,251
Scotland	6,712	6,732	7,672
Wales	3,534	2,973	3,917
Research Nurseries	320	94	145
BROADLEAVED SEED			
Great Britain	139,567	200,779	218,044
England	93,139	137,054	152,945
Scotland	6,027	9,093	16,408
Wales	39,804	54,447	47,912
Research Nurseries	597	185	779

STOCKS OF TRANSPLANTS AND SEEDLINGS

Table 15

At 30th September

Thousands of Plants

	1952	1953	1954
TOTAL TRANSPLANTS			
Great Britain	184,075	191,407	189,117
England	58,144	55,506	58,006
Scotland	87,096	88,568	91,052
Wales	38,541	44,933	39,527
Research Nurseries	294	2,400	532
CONIFEROUS			
Total, Great Britain	166,667	179,075	180,270
England	45,914	47,150	52,058
Scotland	85,596	87,360	89,701
Wales	34,931	42,335	38,059
Research Nurseries	226	2,230	452
BROADLEAVED			
Total, Great Britain	17,408	12,332	8,847
England	12,230	8,356	5,948
Scotland	1,500	1,208	1,351
Wales	3,610	2,598	1,468
Research Nurseries	68	170	80
TOTAL SEEDLINGS			
Great Britain	315,735	279,651	316,029
England	93,517	90,993	84,590
Scotland	150,510	134,769	156,316
Wales	70,582	49,416	71,639
Research Nurseries	1,126	4,473	3,484
CONIFEROUS			
Total, Great Britain	303,621	264,319	293,712
England	85,874	81,597	72,100
Scotland	149,691	132,963	153,117
Wales	66,963	45,374	65,416
Research Nurseries	1,093	4,385	3,079
BROADLEAVED			
Total, Great Britain	12,114	15,332	22,317
England	7,643	9,396	12,490
Scotland	819	1,806	3,199
Wales	3,619	4,042	6,223
Research Nurseries	33	88	405

SALES OF NURSERY PLANTS

Table 16

Year ended 30th September, 1954

Thousands

All species: TOTAL	5,573
Coniferous: Total	5,347
Scots pine	1 117
Corsican pine	421
European larch	3
Japanese larch	609
Douglas fir	16
Norway spruce	2,185
Sitka spruce	824
Other conifers	172
Broadleaved: Total	226
Ash	—
Oak	175
Beech	1
Other broadleaved species	50

Plantations

The last three months of 1953 were favourable for preparatory work and the mild open weather enabled an early start to be made with planting. In most districts however, the onset of unusually cold weather with snow held up planting for a time at the end of January and the beginning of February. Thereafter favourable conditions again prevailed except where planting was prolonged into the dry spell which occurred in most parts during April and in the south extended into May. The effects of this dry spell on newly planted trees were, however, lessened by the persistently wet weather which followed. Notwithstanding the cool wet sunless summer, plantations generally showed satisfactory growth. The wet conditions encouraged an exceptionally heavy growth of weeds in the plantations, and to prevent suppression of newly planted trees three weedings during the season were required in many parts. Unseasonable frosts were not particularly widespread; some damage was caused in East Anglia by a frost at the end of June, while in south Scotland a frost at the beginning of July affected some of the nurseries and young trees in frost hollows in some of the plantations.

New plantations formed during the year totalled 70,437 acres; this exceeds last year's planting by 2,827 acres and is the largest area yet planted by the Commission in one year. In addition, 369 acres of existing woods were underplanted. Planting in Scotland amounted to 34,344 acres and accounted for 49 per cent. of the total planted by the Commission; in England, 22,994 acres were planted, being 33 per cent., while Wales contributed 13,099 acres, 18 per cent. of the total. Details, by Conservancies, of the acreages planted in each country are given in Table 17 below, while the planting in individual forests is detailed in Appendices 12 to 14 on pages 65 to 75.

AREAS PLANTED AND UNDERPLANTED

Table 17

Year ended 30th September, 1954

Acres

Country or Conservancy	Planted	Under-planted	Country or Conservancy	Planted	Under-planted
GREAT BRITAIN	70,437	369	SCOTLAND: Total ...	34,344	51
ENGLAND: Total ...	22,994	270	Conservancy:		
Conservancy:			North ...	7,816	17
North West ...	3,509	6	East ...	8,417	12
North East ...	9,244	12	South ...	10,030	3
East ...	3,105	239	West ...	8,081	19
South East ...	2,619	10	WALES: Total ...	13,099	48
South West ...	3,268	3	Conservancy:		
New Forest ...	818	—	North ...	6,269	39
Dean Forest ...	431	—	South ...	6 830	9

Table 18 below gives an analysis of the 70,437 acres planted during the year. This Table shows that 63,084 acres were planted with conifers and 7,353 acres with broadleaved species, representing proportions of 90 per cent. conifers and 10 per cent. broadleaved species. These proportions have not varied greatly over the past few years but the tendency has been for the proportion of the broadleaved species to increase slightly. The planting of broadleaved species comprised 5,482 acres in England, 1,488 acres in Wales and 383 acres in Scotland; in England the bulk of this planting was done in the South East and South West Conservancies and in the New Forest; in Wales, more than half of the broadleaved planting was in the South Conservancy.

AFFORESTATION AND REPLANTING

Table 18

Year ended 30th September 1954

Acres

	Great Britain	England	Scotland	Wales
TOTAL PLANTED:				
All species	70,437	22,994	34,344	13,099
Conifers	63,084	17,512	33,961	11,611
Broadleaved	7,353	5,482	383	1,488
AFFORESTED:				
All species	43,028	11,686	23,443	7,899
Conifers	41,814	10,784	23,338	7,692
Broadleaved	1,214	902	105	207
RE-PLANTED:				
All species	27,409	11,308	10,901	5,200
Conifers	21,270	6,728	10,623	3,919
Broadleaved	6,139	4,580	278	1,281

Table 18 also shows that the year's planting was divided between 43,028 acres afforested i.e. the planting of land which was not previously woodland, and 27,409 acres replanting of cleared woodland; this latter figure includes 385 acres replanted after destruction by fire.

The ratio between afforestation and re-planting is thus 61 per cent. and 39 per cent. respectively; these proportions show little change from those of the previous year.

Plants used for Planting and Beating-up

A total of 122·4 million young trees were planted in the Commission's forests; 107·5 million were used in the formation of new plantations and 14·9 million for beating-up, that is, for replacing failures in the more recently formed plantations. For comparison, the number of plants used last year were: in new plantations, 104·4 million; for beating-up, 14 million.

The proportions in which the main species were used for planting are given below:

	1954	1953
Spruces (Norway and Sitka)	33 per cent.	37 per cent.
Pines (Scots and Corsican)	27 per cent.	26 per cent.
Larches (European and Japanese)	14 per cent.	14 per cent.
Douglas fir and other conifers	15 per cent.	13 per cent.
Broadleaved species (chiefly oak and beech)	11 per cent.	10 per cent.

It will be seen that there have been only small changes in the proportions in which the main species have been used in relation to those of the previous year. These changes have followed the trends noted in previous reports; in the main these are that the proportions of Sitka spruce have decreased in favour of pines, particularly Scots pine and *Pinus contorta*; there has also been greater use of a number of species hitherto not extensively planted, such as *Tsuga heterophylla*, *Thuja plicata*, Lawson cypress, *Picea omorika* and *Abies grandis*. There has also been a small increase in the proportions of broadleaved trees planted, this increase in the present year being entirely in respect of oak of which well over 5½ million trees were used for new plantations.

The period of greatest fire danger to plantations is usually in the early spring when the dead ground vegetation becomes readily inflammable after even a short spell of fine weather. This year was no exception and during March, April and May, the forest staff dealt with 1,091 outbreaks. April, during which dry conditions were experienced between the 7th and 27th over large areas of England, Wales and south Scotland, was the worst month of the year; during this month there were 746 outbreaks (56 per cent. of the total) which accounted for 54 per cent. of the area of plantations destroyed during the year. During the rest of the year there were few periods when the fire danger was great.

No individual fire in plantations was particularly large; the ten largest, the extent of which ranged from 8 to 50 acres, accounted for 284 acres of the total of 390 acres burned. Table 20 below gives statistics for the past five years in respect of the number of fires dealt with, the area of plantations burned and the loss sustained.

NUMBER AND EXTENT OF FOREST FIRES, 1950-1954

Table 20 Year ended 30th September

	Number of Fires	Area Burned (acres)	Assessed Damage £
1950	874	158	7,000
1951	1,327	348	12,000
1952	1,130	455	16,000
1953	1,253	532	15,000
1954	1,344	390	16,000

An analysis of the causes of forest fires is given in Table 21 below.

CAUSES OF FOREST FIRES

Table 21 Year ended 30th September, 1954

	Number of Fires	Area Burned (acres)
Total	1,344	390
Railways	965	209
Adjoining Land	225	5
General Public	36	16
Commission Employees	17	6
Incendiarism	—	—
Miscellaneous	8	5
Unknown	93	149

This analysis shows that, as in previous years, railways caused by far the greatest number of fires; the 965 fires from this source accounted for 72 per cent. of all fires and for 54 per cent. of the area of plantations burned. The high proportion of loss of plantations from railway fires is unusual; the corresponding figures for last year are—714 fires accounting for 57 per cent. by number and 21 per cent. of the area of plantations destroyed. Fires coming in from adjoining land and those caused by the general public were less than last year; fewer opportunities for controlled burning by farmers and for picnics by visitors are the probable reasons for these reductions. Fires caused by the Commission's workmen amounted to 17 of which ten occurred during authorised burning operations; the loss of plantations from this cause, happily, was small—six acres in all.

Effective fire fighting arrangements are in force at all the Commission's forests, the key note of these arrangements being instant detection of the fire followed by the immediate despatch of small well-equipped units in advance of the main force. The County and Area Fire Services take an important part in our fire-fighting arrangements and close liaison is maintained with these services. In order that effective control can be exercised at all stages, short-wave radio equipment is now in use at Thetford Chase, one of the Commission's largest forests, and will be issued to other forests during the coming year.

Protection against Damage by Animals and Insects

There is no doubt that the expense of excluding rabbits from young plantations is the greatest single deterrent to the more rapid rebuilding of our forest resources and equally that the outbreak of myxomatosis among wild rabbits is likely to present exceptional opportunities for the extermination of this expensive pest. Myxomatosis has now spread to almost every county in Britain, but it is not yet possible to assess its full impact on forestry. The reduction in numbers of rabbits by this disease has already assisted greatly in the control of rabbits in many districts, and over land under the Commission's control every opportunity is being taken to deal with any rabbits which may escape infection; the Commission is also anxious to co-operate with adjoining owners in rabbit extermination. During the year, the Commission's trappers and warreners destroyed 292,000 rabbits and close on 13,000 hares; the figures for the previous year were 267,000 rabbits and 13,000 hares.

The campaign against grey squirrels in the Commission's forests has been intensified and has resulted in an increase, compared with last year, of 33 per cent. in the numbers destroyed. The number killed in the present year was 43,900 of which 41,000 were in England, 1,900 in Wales and 1,000 in Scotland. As in the previous year, most of the squirrels destroyed in England were in the southern half of the country; the numbers killed in the New Forest, Dean Forest and the South-East Conservancy respectively were 12,400, 10,500 and 11,600. In Wales, most of the squirrels taken were in the South Conservancy, while in Scotland no destruction of squirrels is reported outside the East and West Conservancies.

Damage by voles in Carron Valley Forest, Stirlingshire, which was commented on last year, has now practically ceased; it is perhaps of interest to record that there was no sudden drop in numbers as expected but a gradual diminution. In the North Conservancy of Scotland some vole damage has been noted in many places, but nowhere has it been intense.

In the interests of our tenants and neighbours, 4,600 foxes and cubs were destroyed; last year the total was 3,500.

Considerable damage was done by caterpillars of the Pine Looper Moth at Cannock Chase, Staffordshire, where 120 acres of plantations were seriously defoliated. An outbreak of this defoliator also occurred in the Moray Firth forests and at Culbin Forest in particular; this outbreak is not at present so serious as that at Cannock Chase. As a control measure, 2,600 acres of plantations at Cannock Chase and 3,500 acres at Culbin Forest were sprayed from aeroplanes; general preliminary surveys show that this treatment has been successful, but detailed surveys are in progress. These outbreaks are more fully described under Forest Entomology (page 52).

PRODUCTION AND SALE OF PRODUCE

Thinning and Clear Felling

As in previous years, the greater part of the produce from the Commission's forests came from thinnings made in the younger plantations, the proportion

being approximately 77 per cent. Clear fellings of high forest are kept to the lowest extent consistent with good management. A summary by Conservancies of the acreages thinned and clear felled is given in Table 22 below.

AREAS THINNED AND FELLED

Table 22

Year ended 30th September, 1954

Acres

	Thinned	Felled		Thinned	Felled
GREAT BRITAIN: Total	36,561	5,236	SCOTLAND: Total ...	10,009	1,088
ENGLAND: Total ...	21,346	2,906	Conservancy:		
Conservancy:			North ...	2,425	403
North West ...	4,101	169	East ...	862	581
North East ...	3,435	243	South ...	2,126	5
East ...	7,006	445	West ...	4,596	99
South East ...	1,646	1,081	WALES: Total ...	5,206	1,242
South West ...	1,994	514	Conservancy:		
New Forest ...	1,639	325	North ...	3,100	600
Dean Forest ...	1,525	129	South ...	2,106	642

The area of plantations thinned was 36,561 acres; of this, 13,835 acres were thinned for the first time while 22,726 acres had already received one or more thinnings. For the past three years the area thinned has been in the region of 37,000 acres a year; most of this work has been done by the Commission's own labour staff, but merchants in the past two years have felled between 12 and 14 per cent. of the total area thinned; the proportion in 1952 was slightly higher, being 21 per cent. Clear fellings amounted to 5,236 acres; last year the area was slightly less at 5,098 acres; an analysis of the area cleared during the year shows that 991 acres were classed as High Forest, and 777 acres as coppice or coppice-with-standards, while 3,468 acres came under the head of scrub or devastated woodlands being cleared for replanting.

Production and Disposal of Forest Products

The volume of standing timber, prepared timber and other forest products sold or used for forest purposes during the year amounted to 13.93 million cubic feet, comparative figures for 1953 and 1952 were 12.09 and 12.44 respectively. Disposals of standing timber including thinnings fell from 2.25 million cubic feet in 1953 to under 2 million cubic feet in the current year, due largely to the special circumstances in Scotland; on the other hand, sales of round timber and sawlogs, which amounted to 3.4 million cubic feet, showed an increase of over 0.85 million cubic feet. There was a slight increase as compared with last year in mining timber disposals at 3.41 million cubic feet: increases were also recorded in the quantities of unselected poles, and fencing material—1.82 million as compared with 1.28 million cubic feet; sales of pulpwood and boardmill material improved; these totalled 1.36 million cubic feet in 1954 as against 1.15 million in 1953 and 1.32 in 1952. Sales of firewood continued on a substantial scale (1.58 million cubic feet) and disposals of sawn timber increased as a result of direct milling operations in the windblow area.

Requirements of special markets, e.g., hop poles, ladder poles and harvest poles, were met on an increasing scale; the demand for harvest poles, in particular, was unusually heavy.

The gross income from all classes of forest produce, including sales of plants from forest nurseries amounting to £29,000, was £2,190,000 as against £1,956,000

in the previous year. Expenditure on the preparation and despatch of forest produce increased to £1,258,000 as compared with £1,090,000 last year. (Appendix 3, page 59.)

LICENSING OF TIMBER FELLING

Licences issued during the year were 6,386 in number and authorised the felling of 40·631 million cubic feet of timber. The corresponding figures for the previous year were: 8,030 licences issued, covering 68·760 million cubic feet. Details of the apportionment between coniferous and broadleaved species in the licences issued during the year are given below.

	<i>Cubic feet quarter-girth over bark (millions)</i>
<i>Conifers</i>	
<i>Counting against Quota</i>	
Over 6 inches quarter-girth at breast height ...	10·829
<i>Not counting against Quota</i>	
Thinnings over 6 inches quarter-girth at breast height	2·205
6 inches quarter-girth and under at breast height ...	6·486
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/> 19·520
<i>Broadleaved species</i>	
<i>Counting against Quota</i>	
Over 6 inches quarter-girth at breast height ...	19·920
<i>Not counting against Quota</i>	
6 inches quarter-girth and under at breast height	1·191
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/> 21·111
Total	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/> 40·631 <hr style="width: 100px; margin-left: auto; margin-right: 0;"/>

As noted earlier in this report (page 00) the felling quotas fixed for England and Wales were not entirely taken up; no felling quota was fixed for Scotland on account of the need to clear windblown timber, but included in the quantities given in the above statement as counting against the quota is windblown timber amounting to 8·116 million cubic feet of coniferous timber and 0·925 million cubic feet of broadleaved timber.

The volume of timber not coming within the quota restrictions for which licences were issued was less than in the previous year; in the "6-inch and under" class the difference, taking conifers and broadleaved trees together, amounted to 3·4 million cubic feet.

Of the 6,386 licences issued, 1,699 authorised the clear felling of 18,357 acres, of which 1,290 licences carry restocking and maintenance conditions applying to 13,328 acres; 170 licences for the clear felling of 1,690 acres were issued to Dedicated estates, and the restocking of this area is also assured. Clear felling licences to which no replanting conditions were attached (excluding those issued to dedicated estates) numbered 239; these licences covered 3,339 acres of which the greater part, amounting to 2,234 acres, is in respect of land which will be acquired for replanting by the Commission.

In addition, 55 replacement licences were issued in respect of time-expired licences; these covered the felling of 1,235 acres of which 70 acres are on Dedicated estates and 968 acres are on other estates and carry restocking and

maintenance conditions; replacement licences with no conditions attached covered 197 acres of which 143 acres are in respect of land which will also be acquired for replanting by the Commission.

The administrative cost of licensing the felling of timber during the year under report was £73,000; this amount is included under superior supervision overhead charges in Appendix 8, Special Services (page 61).

ROADS

Progress in the construction of forest roads, in common with most forest work, has been hindered by bad weather which made it difficult to get the best out of machines or men; progress has also been affected by shortage of engineer staff.

In general there has been little change in the specifications for forest roads. Wherever practicable the roads have been built by tipping and spreading minimum thicknesses of locally got stone or other material on to existing or roughly shaped surfaces.

The progress made in the construction of forest roads in each country is given below.

FOREST ROADS

Table 23

Year ended 30th September, 1954

	Length of Road (Miles)				Number of Forests at which work was undertaken
	Completed		Under Construction		
	Main	Feeder	Main	Feeder	
GREAT BRITAIN: Total	201	76	52	24	174
England	32	41	18	13	57
Scotland	131	29	7	4	92
Wales	38	6	27	7	25

Road construction was undertaken at 174 forests and 277 miles of motorable roads were completed; 73 miles in England, 160 miles in Scotland, and 44 miles in Wales; the figures for the previous year were: England, 93 miles; Scotland, 157 miles; Wales, 77 miles. Roads under construction totalled 76 miles as compared with 80 miles at the end of the previous year.

Expenditure on roads amounted to £492,000, of which £388,000 was in respect of new roads and £104,000 on maintenance of existing roads. Expenditure in the previous year was: New Roads, £383,000; maintenance, £98,000.

ESTATE MANAGEMENT

Properties in the charge of the Commission show the usual diversity associated with large estates. In addition to the 937,700 acres of plantations and nurseries, other land under the management of the Commission amounts to 749,000 acres. This includes 273,000 acres of land which will be planted in due course but the major part is comprised of farms, forest workers holdings, and unplanted land. The number of lettable subjects, including easements and permissions number 11,409; these are summarised in Table 24 below.

TENANCIES

Table 24

At 30th September, 1954.

Number

Description	Great Britain	England	Scotland	Wales
Houses for Supervisors and Forest Workers	4,387	1,728	2,050	609
Foresters and Foremens Houses	619	274	258	87
Forest Workers Holdings	1,227	540	460	227
Forest Workers Houses	2,541	914	1,332	295
Other properties	3,715	1,516	1,469	730
Agricultural, with house	572	160	188	224
Agricultural, land only	1,538	637	562	339
Houses and other premises	529	262	212	55
Sporting lettings	1,076	457	507	112
Miscellaneous				
Easements, permissions, etc.	3,307	1,864	1,082	361

From the above table it will be noted that 4,387 houses have been provided for the forest staff. Foresters and foremens houses number 619, while holdings and houses for forest workers now amount to 3,768. Other properties which include farms, agricultural land, houses and other premises together total to 2,639, while lettings of sporting were 1,076 in number. Miscellaneous easements, permissions and the like total 3,307.

There have been the normal changes of tenancies during the year, and most workers' houses and holdings let readily, though there are difficulties in places at times in finding suitable tenants for houses in isolated places. In Wales relettings of forest workers' houses have been unusually numerous, but this is probably due to some townspeople being unable to adapt themselves to a new environment.

Schemes of land improvement by drainage and providing water supplies have been undertaken and small re-organisations to improve farms and holdings continue to be made as the opportunity occurs.

In the more favourable districts a good demand exists for sporting rights at fair rentals, but where sporting is affected by extensive silvicultural works some difficulty is experienced. In Scotland, the demand for shootings has declined somewhat except in East Conservancy.

Buildings

During the year, 272 new houses or houses obtained by conversion of larger properties were completed, of which 122 are in England, 108 in Scotland and 42 in Wales. Many of these new houses are additions to existing, or form the first development of, new forest villages; for example, in England additions to the villages of Kielder, Byrness, and Stonehaughshields numbered 60; in Scotland, 16 of the new houses were additions to Dalavich village, where a shop was also built; while at Glentroot village, the first development of 47 houses and a shop was completed. In the North Conservancy, Scotland, four houses were erected using timber from Commission forests except for doors, windows and skirtings. In Wales, 19 of the new houses formed an addition to Llandulais village, Crychan Forest, where a shop and village hall were also built. Development follows approved plans and despite normal difficulties in projects of such size and in somewhat isolated places, these villages are rapidly acquiring an identity.

Repair and maintenance work continue to be expensive; costs have generally shown an increase and building contractors prepared to tender for work on isolated premises are scarce.

Expenditure on buildings, including Forest Workers Holdings, was £698,000 as compared with £870,000 in the previous year; this expenditure comprises £588,000 on new buildings, conversions and adaptations, while repairs and maintenance amounted to £110,000. Income from rents and royalties was £204,000, as compared with £185,000 last year.

STORES

Under this head is included expenditure on the purchase and maintenance of manual tools, powered tools, road vehicles, tractors for forest, nursery and road work, ploughs and other cultivating equipment used in the forest and nursery, as well as road-making machinery and fire-fighting equipment of various kinds. The total expenditure was £802,000 of which £310,000 was in respect of new equipment and £492,000 on maintenance and repairs. A comparison with last year shows (Appendix 3, page 59) that, in total, expenditure was less by £41,000, made up of a decrease of £44,000 in respect of new equipment and an increase of £3,000 in respect of maintenance and repairs to equipment.

LOST TIME : HOLIDAYS : SICK PAY

The Commissioners make payments to their industrial staff in respect of time lost on account of bad weather, holidays and periods of sickness; expenditure amounted to £680,000, comprising £328,000 for lost time, £273,000 for holidays, and £79,000 for sick pay. Compared with the previous year these amounts show increases as follows: lost time, £67,000, an increase of 26 per cent.; paid holidays, £36,000, an increase of 15 per cent. (Note: holidays with pay were increased by three days in 1954); sick pay, £5,000, representing an increase of seven per cent.

MISCELLANEOUS EXPENDITURE

Under this head is included expenditure amounting to £354,000; the main items being for travelling and subsistence allowances to industrial workers (£112,000); miscellaneous estate expenses (£61,000); payments in respect of rates and taxes (£38,000); workmen's compensation, pensions and gratuities (£38,000); and upkeep of hostels and bothies (£32,000).

PRIVATE FORESTRY

Expenditure on private forestry amounted to £463,000 as compared with £432,000 in the previous year. The greater part of this expenditure was in respect of payments under the Dedication Scheme which totalled £266,000; payments for planting done outside the Dedication Scheme amounted to £40,000, of which Small Woods Planting Grants accounted for £31,000. Other payments included Thinning Grants (£38,000), Scrub Clearance Grants (£5,000) and grants to co-operative forestry societies (£3,000), while the Commission's share of expenditure in connection with the profits-sharing scheme with the Liverpool Corporation at Lake Vyrnwy was £4,000. Salaries and expenses of the staff administering these schemes and employed on agency and advisory work was £106,000.

Income credited to this head was £17,000 made up of refunds of planting grants (£11,000) and payments for agency and advisory services (£6,000).

The Dedication Scheme

After consultation with the United Kingdom Forestry Committee, the Commissioners increased the grants for planting and maintenance payable under the Dedication Scheme; from October 1953 the planting grant was increased from £14 to £15 per acre and the maintenance grant from 4s. 6d. to 5s. per acre.

The progress of dedication since its inception is given in Table 25 below. The total area now dedicated amounts to 342,621 acres, and it is encouraging to note that, taking into account the area of Approved Woodlands, there are now some 387,000 acres under management, apart from woodlands already under management which have not been put forward for inclusion in either of these schemes.

PROGRESS OF DEDICATION

Table 25 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, 1948-54	732	342,621	441	155,230	238	175,871	53	11,520
1948-52 ...	252	149,144	118	51,656	116	93,223	18	4,265
1953 ...	227	76,810	143	42,963	61	28,255	23	5,592
1954 ...	253	116,667	180	60,611	61	54,393	12	1,663

Dedications during the year numbered 253 covering 116,667 acres of woodland, and while this is a considerable addition it would no doubt have been greater but for a number of decisions to dedicate being held up pending amendments to the Dedication covenant and agreement. The introduction of grants under the Approved Woodlands Scheme has also had its effect. In addition to the area actually dedicated, Plans of Operations put forward by 172 estates covering 77,496 acres of woodlands had been agreed and, with a few exceptions, the Dedication deeds for these estates were being prepared, while a further 189 estates with 88,099 acres of woodlands were in course of preparing Plans of Operations.

Approved Woodlands

The term "Approved Woodlands" signifies woodlands on estates whose owners have decided not to dedicate their woodlands but have undertaken to manage them according to a Plan of Operations approved by the Commission. From October 1953 planting in Approved Woodlands, for which hitherto no grants were given, qualifies for grants at half the rate of the planting grant for Dedicated woods. This, no doubt, has resulted in the considerable increase in the number of estates electing to avail themselves of this scheme. There are now 146 estates, with a woodland area of 44,400 acres, accepted as Approved Woodlands; the addition during the year was 93 estates with 26,321 acres of woodlands, distributed as follows: England, 65 estates with 17,621 acres of woodlands; Scotland, 19 estates with 7,039 acres; Wales, 9 estates with 1,661 acres of woodlands. At the end of the year Plans of Operations covering a further 60,000 acres were in course of preparation.

Planting on Private Estates

In addition to the planting grants available for Dedicated and Approved Woods, grants are available for planting undertaken in woods coming within the category of Small Woods, and also for planting poplars in blocks or in lines.

A summary by number and area of the planting grant schemes which were inspected and passed for payment during the year is given in Table 26 below:

PLANTING UNDER STATE-AIDED SCHEMES

Areas inspected and passed for payment

Year ended 30th September 1954

Table 26

	Planting under Dedication	Small Woods Planting	Approved Woods Planting	*Poplar Planting	Total
GREAT BRITAIN					
No. of Schemes ...	763	532	45	84	1,424
Total Area, acres ...	13,186	2,900	468	270	16,824
Conifers ...	8,849	1,645	244	—	10,738
Broadleaved ...	752	129	28	270	1,179
Mixed ...	3,585	1,126	196	—	4,907
				(5,350 trees)	
ENGLAND					
No. of Schemes ...	485	301	32	75	893
Total Area, acres ...	5,910	1,605	256	248	8,019
Conifers ...	2,316	506	60	—	2,882
Broadleaved ...	670	111	16	248	1,045
Mixed ...	2,924	988	180	—	4,092
				(5,045 trees)	
SCOTLAND					
No. of Schemes ...	232	136	6	6	380
Total Area, acres ...	6,860	828	146	17	7,851
Conifers ...	6,205	706	124	—	7,035
Broadleaved ...	44	12	6	17	79
Mixed ...	611	110	16	—	737
WALES					
No. of Schemes ...	46	95	7	3	151
Total Area, acres ...	416	467	66	5	954
Conifers ...	328	433	60	—	821
Broadleaved ...	38	6	6	5	55
Mixed ...	50	28	—	—	78
				(305 trees)	

* Numbers of poplar trees relate to grants made on the "per tree" basis, and are additional to trees covered by acreage grants.

This table, however, does not give a complete picture of the planting done during the year as it includes planting done in earlier years but not inspected

till the year under review, and on the other hand some areas planted in the current year have not yet been inspected.

Table 27 below, compiled from information supplied by Conservators, provides an estimate of the planting done during the year on private estates, including planting without the aid of grants.

ESTIMATED AREA OF PRIVATE PLANTING

Table 27 Year ended 30th September 1954 Acres

	State-aided	Planted without the aid of Grants	Total
GREAT BRITAIN	15,700	3,400	19,100
England	7,400	1,800	9,200
Scotland	7,300	1,400	8,700
Wales	1,000	200	1,200

The total area planted on private estates in the year under review is estimated at some 19,100 acres, of this 15,700 acres are known to have been planted under grant schemes, while 3,400 acres is an estimate, possibly conservative, of the area planted without any grant being asked for. Last year the total planting was estimated at 18,200 acres of which 13,000 acres were with grants and 5,200 acres without grants.

Scrub Clearance Grants

This grant is intended to assist owners to clear unproductive scrub areas for planting. It is available for Dedicated Woodlands, Approved Woodlands and also Small Woods. The grant payable depends on the estimated cost of clearing; it is at the rate of £7 10s. 0d. per acre for areas estimated to cost more than £15 but less than £25 net per acre; a higher rate of £12 10s. 0d. per acre is payable where the estimated cost of clearing exceeds £25 net per acre. This assistance will be available for five years from 1953 onwards; payment is made in two instalments, the first of 75 per cent. on completion of the clearing and planting, and the balance five years later, provided the plantation has been satisfactorily maintained. The planting grant, applicable to each description of woodland, is payable in addition. The number of scrub clearance schemes inspected and passed for first payment during the year was 85; the area cleared was 574 acres. Details by countries are given in Table 28 below.

SCRUB CLEARANCE GRANTS

Schemes inspected and passed for First Payment
Year ended 30th September 1954

Table 28

	Number of Schemes	Area (acres)
Great Britain	85	574
England	49	400
Scotland	9	35
Wales	27	139

An analysis of the area cleared shows that 409 acres were in Dedicated Woodlands, 35 acres in Approved Woodlands and 130 acres in Small Woods.

Thinning Grants

Under the present regulations a grant of £3 15s. 0d. per acre is available for first and second thinnings made in stands coming within certain limits of height, or alternatively, of girth. Table 29 below gives details for each country of the schemes inspected and passed for payment.

THINNING GRANTS
Schemes Inspected and Passed for Payment
Table 29 Year ended 30th September, 1954

	Number of Schemes	Area (acres)	Estimated Volume (cubic feet)
GREAT BRITAIN	807	10,180	2,888,164
England	576	6,787	1,896,978
Scotland	158	2,518	720,180
Wales	73	875	271,006

A comparison with last year's figures for the whole of the country shows no significant change; the totals for 1953 were: 845 schemes covering 11,373 acres, with an estimated yield of 3·09 million cubic feet. An examination of the figures for individual countries, however, shows that while there have been slight increases in area and out-turn in both England and Wales, there has been a decided drop in Scotland which is attributed to the pre-occupation of owners and merchants with the clearing of woods blown down by the 1953 storm.

RESEARCH AND EXPERIMENT

Research work and special investigations into forestry problems were continued at the Forest Research Station, Alice Holt Lodge, near Farnham, Surrey, and also in experimental areas in many forests in England, Scotland and Wales. Expenditure amounted to £222,000, as compared with £215,000 in the previous year (for details see Appendix 6, page 60).

A brief outline of some of the more important work undertaken is given in the following paragraphs. Fuller accounts of research projects will be found in the Report on Forest Research for the Year ending March 1954. (H.M.S.O. *In the Press*).

The interest in forest research work and the activities of the Research Station is reflected in the increasing number of visitors. This year there were 406 visitors to the Research Station; these included students from home universities and other institutions, also forest officers and others interested in forestry from the following Commonwealth and foreign countries:—Argentina, Austria, Australia, Bolivia, Burma, Canada, Denmark, Finland, France, Germany, India, Israel, Japan, Malaya, New Zealand, Norway, Pakistan, Rhodesia, Sierra Leone, South Africa, Sudan, Trinidad, Turkey, Uganda and the United States of America.

Silviculture

The testing of the purity and germinative quality of the seed to be used in the Commission's forest nurseries continued to be the main function of the Seed Testing Laboratory at Alice Holt. The pre-chilling of seed of Douglas fir, Sitka spruce and lodgepole pine (*Pinus contorta*) to accelerate germination has been adopted as a standard treatment; this permits a greater number of tests to be carried out during the year. Recordings of seed-borne fungi and

investigations into seed-storage methods continue. In collaboration with the Biochemical and Forest Tree Seed Committee of the International Seed Testing Association a series of experimental seed tests are being undertaken.

Experimental work in Scottish nurseries on chemical soil-sterilization showed chloropicrin to be as efficient as formalin; these trials are continuing. Other nursery investigations in progress are: manuring trials, the effects of the time and the method of application of various fertilizers, seedbed compaction, materials for covering seed after sowing, and soil conditioners. The chemical control of weeds both in seedbeds and transplant lines, seedbed irrigation and, on a small scale, the raising of Sitka spruce seedlings by intensive methods, are also being studied.

The two main silvicultural projects in hand are investigations into the treatment of derelict woodlands and the establishment of tree crops on difficult sites. Trial plots on land considered unplantable by present standards have been planted in the Orkneys, and also in Ross-shire and in Ayrshire; in these trials lodgepole pine, with Sitka spruce on areas of better soil, have been the main species used. A trial plot at Croft Pascoe, Cornwall, is of special interest as it is on serpentine, a rock formation about which there is little information in relation to tree growth; Monterey pine (*Pinus radiata*) and Maritime pine (*Pinus pinaster*), both sown and planted, have been used in this trial. Other projects include ploughing, manuring in the forest, spacing, pruning trials and experiments in the use of various arboricides, as well as tests of rabbit and deer repellents.

Ecological studies of natural regeneration of beech were undertaken at Chilterns Forest, Oxfordshire, where the effects of trenching and the application of ground chalk and a general artificial fertilizer are being studied.

Research on poplars continues; eight further silvicultural experiments were started to investigate such matters as the establishment of plants of different ages and types, different spacing, and the handling of planting stock. The planting of 18 poplar trial areas has now been completed and in the Populetum at Alice Holt Forest, 90 of the 300 clones which the Populetum is designed to hold were set out. Experimental work has also been started to determine the most satisfactory manurial treatment for raising cuttings on a basic peat soil. Recent inspections of some of the nursery stock indicate that the cold summer has affected the growth of poplars and will restrict the supply of cuttings for use next season.

Forest Genetics

Over one hundred and thirty plantations were assessed during the year as to their suitability as sources of seed. A further two hundred and fifty trees were added to the list of 'plus' trees selected for breeding purposes; the total number of 'plus' trees of all species is now one thousand and fifty. Plants are being raised by grafting, or by rooting cuttings, for trials of the genotype on representative sites in various parts of the country; during the year over four thousand successful grafts were made.

Further work was done on small seed orchards for the reproduction of the "Altyre" and "Crathes" strains of Scots pine; seed orchards for the production of the first generation hybrid larch (*X Larix eurolepis* Henry) were also established at Mabie Forest, Kirkcudbrightshire, and in Grizedale Forest, Lancashire.

Forest Pathology

Investigations were continued into the "group dying" of Sitka spruce, the "top dying" of Norway spruce, resin bleeding of Douglas fir and damping-off due to the fungus *Botrytis cinerea* in conifer seedbeds. In hardwoods, work

was done on *Nectria* canker of beech, a beech bark disease, and the bacterial canker of poplars.

Several new outbreaks of resin bleeding on Douglas fir have been reported, and two fungi, a *Cephalosporium* and a *Myxosporium*, have appeared fairly consistently in cultures; inoculation experiments with these are now in progress. A survey of the areas affected by the Sooty Bark disease of sycamore showed that the disease was tending to die out rather than increase. Other work included the planting of aspens and two-needle pines to test the resistance of these plants to the rust fungus *Melampsora pinitorqua*, the propagation of strains of Weymouth pine (*Pinus strobus*) received from America which are reputed to be relatively resistant to the rust fungus *Cronartium ribicola*, and the grafting of a number of elm plants received from Holland considered to be resistant to the elm disease.

Studies of Growth and Yield

Seventy-four new permanent sample plots were established and seventy-six were remeasured; one plot was lost through windblow. The following table shows the distribution between countries:—

PERMANENT SAMPLE PLOTS

Table 30

	Great Britain	England	Scotland	Wales
Number at 1st October 1953... ..	556	265	204	87
New plots established during the year	74	55	12	7
Plots abandoned (felled, blown, etc.) during the year	1	1	Nil	Nil
Number at 30th September 1954	629	319	216	94
Remeasured during the year	76	13	58	5

The revision of the 1947-49 Census of Woodlands was continued; the counties of Rutland, Huntingdon, Cambridge, Kincardine, Hereford and Angus were completed and the re-survey of Berkshire and Flintshire is now in progress.

Forest Entomology

Consequent on considerable damage by the caterpillars of the Pine Looper Moth (*Bupalus piniarius* L.) being observed in a number of young pine plantations, a survey of the distribution and density of this defoliator was undertaken in British pine forests. A record was made of the number of pupae per square yard found in the soil under the trees, as this constitutes a good index. In areas of complete defoliation at Cannock Chase, Staffordshire, one hundred and fifty pupae per square yard were counted, dropping to a range of two to twenty per square yard in that part of the forest where the foliage was least affected. At Culbin Forest, Morayshire, over half of its extent, an average of forty pupae per square yard were counted. Other forests where compartments showed numbers in excess of ten pupae per square yard were Kilcoy (Ross-shire), Roseisle (Morayshire) and Alltcailleach (Aberdeenshire). In September, both Cannock Chase and Culbin Forests were sprayed with insecticide from aircraft; this is the first time that aircraft have been used for this purpose in the history of British forestry. Preliminary surveys show that the treatment was highly successful, but a more detailed inspection of the sprayed areas is now in progress.

The other major investigation was the insect situation resulting from the gale-devastated forests in north-east Scotland. The main initial risk from the Pine Beetle, *Myelophilus piniperda*, was lower than was expected due to the

climatic conditions, and probably to the endemic population being rather low before the gale damage. The situation is, unfortunately, rapidly changing, and the material on the ground is now suitable for beetle-breeding and a serious epidemic is expected.

The larch sawfly survey has been continued and a slight recession in the population density of both *Anoploxyx destructor* Bens. and *Pristiphora laricis* Htg. was recorded. A marked decrease was found in the numbers of the Large Larch Sawfly, *Pristiphora erichsoni* Htg., compared with 1952.

Machinery Research

The results of further trials designed to test various tractors on soft ground have been favourable. Mounted toolbars have also been under trial but progress has not been satisfactory owing to the inability of large mounted ploughs to cope with the heavy vegetation so often encountered on heathland ploughing. A tine plough giving deep subsoiling and a shallow furrow does, however, continue to give good results under heathland conditions.

Tests of a drain cleaning machine have been most promising and development is proceeding. Other trials now in progress include haulage over soft ground by means of a tractor-mounted sledge, the use of transplanting machines, power saws and ladders for seed collecting. In continuation of the investigations into the use of wire ropeways for timber extraction a further trial was carried out in Wales.

Utilisation Research

The Advisory Committee on the Utilisation of Home Grown Timber met in December 1953 to consider progress and future work. The utilisation of small-sized material from thinnings, coppice and scrub, is still the main subject under consideration. A study of the use of timber in sea and river defences, which was completed last year, has led to the establishment of service tests for home-grown softwood thinnings when used in a new type of groyne. A method of building construction, suggested to the Committee by the Timber Development Association, which enables use to be made of short lengths of lumber, is being tried in the Thetford area where a two-roomed office is being erected.

A technical investigation into the possibility of using mixed species of hardwoods for pulp was started towards the end of 1953 and progress has been made; other projects in hand include the assessment of the tannin content of the bark of a number of trees and possible uses of sawdust and chips as mulches and composts.

Advisory Committee on Forest Research

This Committee held two meetings to discuss current research work and future programmes. The first of these meetings was held in London in December 1953 and the second in July 1954 at Ross-on-Wye, Herefordshire, when the opportunity was taken to inspect experimental areas in the Dean, Tintern and Dymock forests.

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 amount disbursed during the year was £13,000; grants were made to the Macaulay Institute, Aberdeen, the Imperial Forestry Institute at Oxford, and the Rothamsted Experimental Station, for research work on forest soils from the biological and physiochemical aspects, also to Dr. I. Levisohn, Bedford College, London University, for soil mycological

investigations in relation to forest trees and to the University College of North Wales, Bangor, for work on fungi in forest soils. Grants were also made to the University of Cambridge for investigations into the Sooty Bark Disease of sycamore, to the University of Southampton for work on larch canker, to the University of Aberdeen for botanical research on the native Scots pine and to the University of Edinburgh for bioclimatic studies of the Pine Looper Moth, and for the study of shelterbelts.

EDUCATION

Expenditure on Forester Training Schools, Short Courses for Forest Workers, the Forestry Apprenticeship Scheme and Northerwood House was £141,000. Income amounted to £34,000, of which £24,000 represents the value of work done in the Commission forests by students at the Forester Training Schools. For statement of Expenditure and Income see Appendix 7, page 61.

Forester Training Schools

The training of men for the subordinate grades of the Forestry Commission and for similar posts in private forestry was continued at the five Forester Training Schools, of which two are situated in England, two in Scotland and one in Wales. During the year, the oldest of these schools, the Forester Training School in the Forest of Dean, celebrated its fiftieth anniversary.

The course of training at these schools extends over two years and at the beginning of the year a total of 258 men were under instruction; 137 in their first year and 121 in their second year. The two-year course was completed by 115 men, of whom 111 were awarded Forester Certificates while 4 who did not reach that standard were awarded Foreman Certificates. 110 of these men took up posts in forestry, 97 with the Forestry Commission, 5 in private forestry, 3 with the Colonial Forest Service and 5 men who had been nominated by the Government of Northern Ireland returned to posts in that country; 5 went to other employment.

Short Courses for Forest Workers

Two courses of six weeks duration were held at Chatsworth Estate, Derbyshire through the courtesy of His Grace the Duke of Devonshire. The object of these courses is to provide selected forest workers with training in the theory and practice of forestry to fit them for supervisory duties on private estates. Fourteen men attended each course and all were awarded certificates of efficiency by the Forestry Commission; twenty-six of these men took the examination for the Woodman's Certificate of the Royal Forestry Society of England and Wales and gained that certificate also. A similar course held on the Darnaway Estate, Morayshire through the courtesy of the Earl of Moray was attended by fourteen men; all were awarded certificates of efficiency by the Forestry Commission and all entered for and were successful in obtaining the Junior Certificate of the Royal Scottish Forestry Society.

Forestry Apprenticeship Scheme

An apprenticeship scheme for training youths between the ages of 15 and 17 years as skilled forest workers was started with a pilot scheme in the Forest of Dean in May 1953. A limited extension of the scheme has now been made in other parts of the country, and groups have been started at Dumfries, York and Kesteven; in each case the Local Education Authorities have co-operated by admitting the apprentices to classes on one day a week for further general education.

Northerwood House

Northerwood House in the New Forest has continued to be used as a centre for conducting refresher and other special courses on forestry and for accommodating University students studying working plans and silviculture in the Forest.

Sixteen courses of instruction, each lasting a week, were held for the Commission's staff; the subjects covered were Nursery Work (2), Silviculture (3), Forest Management (1), Utilisation (2), Fire Protection (2), Research Work (1), Introductory Courses for New Entrants (5). Three courses on forestry practice were given for landowners and agents, one for County and National Park Planning Officers and one for officers of Local Authorities. A course on general forestry was again arranged for schoolteachers.

Students from the Universities of Oxford, Edinburgh and the University College of North Wales, Bangor, spent six to eight weeks in residence and those from Aberdeen and Cambridge one week each, making a total period of residence by university students of twenty-three weeks.

Course on Forestry Practice in Scotland

A week's course for landowners and factors, at which eighteen attended, was held at the Forester Training School, Faskally House, Pitlochry, Perthshire. This course, the first of its kind to be given by the Forestry Commission in Scotland, was directed to meet the special requirements of private forestry in that country.

PUBLICATIONS

Eleven new publications for sale were issued through H.M. Stationery Office,* and three pamphlets for distribution free were published directly by the Commissioners; in addition, eight publications issued in previous years were revised or reprinted.

Priced publications comprised:

- (1) Queen Elizabeth Forest Park Guide.

This booklet describes the recently opened national forest park covering Ben Lomond, Loch Ard and the Trossachs, which is named Queen Elizabeth Forest Park in commemoration of the Coronation of Her Majesty.

- (2) Annual Report of the Forestry Commissioners, 1953 (H.C. 174, 1954).
- (3) Bulletin No. 22. Experiments in Tree Planting on Peat.

A comprehensive account is given in this bulletin of the results of numerous experiments, some started more than thirty years ago, on the planting of tree crops on peat covered lands which offer a great potential field for the expansion of forests in the north and west of this country.

The eight new publications in the Forest Record and Leaflet series which cover a wide range of subjects are listed below:

- (4) Forest Record 22. Shelterbelts for Welsh Hill Farms.
- (5) Forest Record 23. Fires in State Forests in the Years 1929-1952.
- (6) Forest Record 24. Revised Yield Tables for Conifers in Great Britain.
- (7) Forest Record 25. Japanese Larches at Dunkeld, Perthshire. A Study in Variation.

* Published by H.M.S.O. at the following prices: No. 1, 3s. 6d.; No. 2, 3s. 0d.; No. 3, 10s. 0d.; No. 4, 2s. 0d.; No. 5, 1s. 6d.; No. 6, 1s. 3d.; No. 7, 2s. 0d.; No. 8, 2s. 6d.; No. 9, 1s. 3d.; No. 10, 9d.; No. 11, 9d.

- (8) Forest Record 26. Drought Crack of Conifers.
- (9) Forest Record 27. Use of Home-grown Timber in Wood Turning and Related Trades in Scotland in 1953.
- (10) Forest Record 28. Volume Tables for Small Hardwood Trees.
- (11) Leaflet 32. Pine Looper Moth.

Two of the pamphlets* for distribution free namely: *Traps for Grey Squirrels* and *Fire! Protect your Plantations*, were given a wide circulation through the courtesy of the principal societies concerned with the land in distributing them with their journals. The third free pamphlet, entitled *Training as a Forester*, provides information required by intending candidates for the Commission's Forester Training Schools.

Members of the Commission's staff contributed articles to scientific and technical journals, and presented papers to conferences concerned with forest sciences, both at home and abroad.

PUBLICITY AND PUBLIC RELATIONS

Because of the growing importance of forestry in Britain and the special opportunities forests provide for recreation, the Commissioners feel that the public should be kept well informed of their problems and progress. The Commissioners appreciate the interest shown by the Press, for whom visits were arranged to forests as far apart as Queen Elizabeth Forest in Hampshire, Glen Affric in Inverness-shire and Coed Morgannwg in Glamorganshire. Various aspects of the Commissioners' work were the subject of broadcasts and were also featured in television.

Forest Officers gave nearly 200 talks to schools and various bodies, including youth organisations and Rotary Clubs. The growing interest in forestry was reflected in other ways. For example, there were numerous visits to forests by organised parties and several members of an amenities association in Yorkshire have been made honorary wardens of a forest and render useful services.

Films on forestry have been in considerable demand. "The Culbin Story", a film made by the Commission dealing with the afforestation of sand dunes on the Moray Firth, was selected for showing at the Edinburgh Film Festival, and has been taken into the national film libraries.

Display material was loaned to numerous schools and there was continued support for the scheme under which schools are able to adopt forest plots for educational purposes.

It was again found possible to extend the agricultural show programme. Displays were arranged at 15 major shows, including the Royal Show, held in Windsor Great Park; the Royal Highland Show at Dumfries; the Royal Welsh Show at Machynlleth; and the Bath and West Show at Exeter. Additionally, as in previous years, smaller exhibits were staged at the Tunbridge Wells and South Eastern Counties Show and at the New Forest Show, and also at several county and local shows in Wales. Display material was again provided for a number of exhibitions in different parts of the country.

Publicity for the Grey Squirrel Campaign was maintained in a number of ways; press notices were issued; a grey squirrel shoot in Scotland was witnessed by the Press; articles were contributed to various journals; and leaflets and posters were widely distributed.

* Copies obtainable on request from the Secretary, Forestry Commission, 25, Savile Row, London, W.1.

NATIONAL FOREST PARKS

By gracious permission of Her Majesty, the area formerly known as Loch Ard National Forest Park was named Queen Elizabeth Forest Park, the ceremony being carried out on 19th June 1954 by the Secretary of State for Scotland, the Rt. Hon. James Stuart, M.P.

The use by the public of the National Forest Parks continues to increase, as shown by the number of persons making over-night stays at the various camping grounds, which reached 75,000. This of course gives only a general indication of the number of visitors as many stay at Youth Hostels and hotels in or near the Forest Parks, or visit them on day excursions.

The Queen Elizabeth Forest Park and those of Argyll, Forest of Dean, Glen More, Glen Trool, Hardknott and Snowdonia together cover 290,000 acres of forest and moorland.

RADNOR (*Chairman*).

J. M. BANNERMAN.

R. C. G. COTTERELL.

LLOYD O. OWEN.

JOHN STIRLING.

W. H. VAUGHAN.

STANLEY LONGHURST.

A. P. F. HAMILTON.

JOHN McNAUGHTON.

D. C. BOWSER.

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

APPENDICES

PAYMENTS BY HEADS OF ACCOUNT, AND RECEIPTS

Appendix 1

		£000s	
1953		<i>Year ended</i> <i>30th September 1954</i>	<i>Total</i> <i>1920-1954</i>
PAYMENTS			
850	Salaries, Wages and Allowances	929	6,933
46	Headquarters Charges	57	373
32	Charges of Directors of Forestry	41	385
133	Charges of Conservators	144	1,167
7,744	Forestry Operations	8,215	68,056
347	Private Forestry	365	2,049
130	Research and Experiment	143	923
99	Education... ..	97	1,645
40	Special Services	382	1,245
<u>9,421</u>		<u>10,373</u>	<u>82,776</u>
2,217	RECEIPTS	2,508	20,537
<u>7,204</u>	NET PAYMENTS ...	<u>7,865</u>	<u>62,239</u>

Note.—This table shows amounts paid and received in cash during the year. (See also Note to Appendix 2.)

EXPENDITURE AND INCOME

Appendix 2

		£000s	
1953		<i>Year ended</i> <i>30th September 1954</i>	<i>Total</i> <i>1920-1954</i>
EXPENDITURE			
8,592	Forestry Operations (Appendix 3)	9,188	76,173
432	Private Forestry (Appendix 5)	463	2,657
215	Research and Experiment (Appendix 6)	222	1,535
141	Education (Appendix 7)... ..	141	2,018
134	Special Services (Appendix 8)	460	1,783
<u>9,514</u>		<u>10,474</u>	<u>84,166</u>
INCOME			
2,300	Forestry Operations (Appendix 3)	2,558	21,391
37	Education (Appendix 7)... ..	34	525
15	Miscellaneous	18	125
<u>2,352</u>		<u>2,610</u>	<u>22,041</u>
<u>7,162</u>	NET EXPENDITURE	<u>7,864</u>	<u>62,125</u>

Note.—This table shows the cash transactions in Appendix 1 adjusted for amounts due to or by the Commissioners at the end of the year and for non-cash transactions such as the value of produce used for forest purposes. Salaries and office charges, shown separately in Appendix 1, are here distributed over the heads of account to which they are appropriate.

In Appendices 3 to 8 the expenditure and income shown above are given in greater detail.

FORESTRY OPERATIONS : EXPENDITURE AND INCOME

Appendix 3

£000s

1953		<i>Year ended</i> <i>30th September 1954</i>	<i>Total</i> <i>1920-1954</i>
	EXPENDITURE (Appendix 2)		
271	Overhead Charges	297	2,705
499	Superior Supervision	542	3,956
581	Local Supervision	616	4,976
469	Acquisition of Land, etc. ...	589	6,225
2,579	Cultural Operations (Appendix 4)	2,860	26,301
1,090	Preparation and Sale of Produce	1,258	7,481
481	Roads	492	3,921
870	Buildings	698	7,546
843	Stores	802	5,679
572	Holidays, Wet time, Sick pay ...	680	7,383
337	Other	354	
8,592		9,188	76,173
	INCOME (Appendix 2)		
12	Sales of Land and Buildings ...	39	458
185	Rents and Royalties	204	3,297
1,956	Forest Produce	2,190	15,926
147	Other	125	1,710
2,300		2,558	21,391
6,292	NET EXPENDITURE	6,630	54,782

CULTURAL OPERATIONS : EXPENDITURE

Appendix 4

£000s

1953		<i>Year ended</i> <i>30th September 1954</i>	<i>Total</i> <i>1920-1954</i>
466	NURSERIES	517	6,180
	PLANTATIONS:		
977	Preparatory Work and Planting	1,114	8,760
809	Establishment and Maintenance	851	7,976
327	Forest Protection	378	3,385
		2,343	
2,579	TOTAL (Appendix 3) ...	2,860	26,301

PRIVATE FORESTRY : EXPENDITURE AND INCOME

Appendix 5

1953		<i>Year ended 30th September 1954</i>	<i>Total 1920-1954</i>
	EXPENDITURE (Appendix 2)		
93	Administration, including Advisory Services...	106	652
27	Planting Grants (other than under Dedication, Approved Woods, Small Woods and Poplar planting)	5	780
240	Grants under Dedication Schemes	266	672
—	Approved Woodlands Planting Grants	2	2
24	Small Woods Planting Grants	31	86
1	Poplar Planting Grants	2	4
38	Thinning Grants	38	277
2	Grants to Co-operative Forestry Societies	3	9
—	Scrub Clearance Grants	5	5
7	Loans	1	9
—	Proceeds-sharing scheme	4	85
—	Agency Services	—	76
<u>432</u>		<u>463</u>	<u>2,657</u>
	INCOME		
8	Refund of Planting Grants	11	
4	Agency and Advisory Services... ..	6	
2	Proceeds-sharing scheme	—	
<u>14</u>		<u>17</u>	<u>109</u>
<u>418</u>	NET EXPENDITURE	<u>446</u>	<u>2,548</u>

RESEARCH AND EXPERIMENT : EXPENDITURE AND INCOME

Appendix 6

1953		<i>Year ended 30th September 1954</i>	<i>Total 1920-1954</i>
	EXPENDITURE (Appendix 2)		
10	Overhead Charges and Superior Supervision	10	103
90	Salaries and Expenses	99	676
103	Labour, Stores, etc.	100	632
12	Grants to Institutions	13	124
<u>215</u>		<u>222</u>	<u>1,535</u>
1	INCOME	1	15
<u>214</u>	NET EXPENDITURE	<u>221</u>	<u>1,520</u>

EDUCATION : EXPENDITURE AND INCOME

Appendix 7

1953		<i>Year ended 30th September 1954</i>	<i>£000's Total 1920-1954</i>
	EXPENDITURE (Appendix 2)		
12	Overhead Charges and Superior Supervision ...	12	128
17	Salaries and Expenses	18	110
	Forester Schools and Short Courses:		
28	Instructors Salaries and Expenses	26	200
33	Allowances to Students	32	299
51	Rent, Stores, Fuel, Light, etc. ...	53	418
	Forest Workers Training Scheme:		
—	Allowances to Trainees ...	—	403
—	Upkeep of Training Centres	—	291
—	Grants to Institutions	—	169
<hr/>			
141		141	2,018
37	INCOME (Appendix 2)	34	525
<hr/>			
104	NET EXPENDITURE	107	1,493
<hr/>			

SPECIAL SERVICES : EXPENDITURE AND INCOME

Appendix 8

1953		<i>Year ended 30th September 1954</i>	<i>£000's Total 1920-1954</i>
	EXPENDITURE (Appendix 2)		
84	Overhead Charges and Superior Supervision ...	88	430
—	Consultative Committee Expenses	—	1
3	Publications	1	18
5	Special Enquiries, Shows, etc.	4	144
—	Relief of Unemployment	—	781
42	Assistance towards cost of transporting Scottish Windblown Trees	367	409
<hr/>			
134		460	1,783
—	INCOME ...	—	1
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134	NET EXPENDITURE	460	1,782
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PLANTATIONS MADE DURING THE YEAR

Appendix 9

Country or Conservancy	Total Area Planted (Acres)	Details of Area Planted (Acres)					
		Coniferous Total	Broad-leaved, Total	Afforested		Replanted	
				Conifers	Broad-leaved	Conifers	Broad-leaved
GREAT BRITAIN ...	70,437	63,084	7,353	41,814	1,214	21,270	6,139
ENGLAND: ...	22,994	17,512	5,482	10,784	902	6,728	4,580
Conservancy:							
North West ...	3,509	2,909	600	1,384	59	1,525	541
North East ...	9,244	8,689	555	7,458	181	1,231	374
East ...	3,105	1,766	1,339	580	339	1,186	1,000
South East ...	2,619	1,438	1,181	176	134	1,262	1,047
South West ...	3,268	1,774	1,494	665	139	1,109	1,355
New Forest ...	818	676	142	437	41	239	101
Dean Forest...	431	260	171	84	9	176	162
SCOTLAND: ...	34,344	33,961	383	23,338	105	10,623	278
Conservancy:							
North ...	7,816	7,793	23	3,922	8	3,871	15
East ...	8,417	8,261	156	3,502	32	4,759	124
South ...	10,030	9,891	139	8,842	40	1,049	99
West ...	8,081	8,016	65	7,072	25	944	40
WALES: ...	13,099	11,611	1,488	7,692	207	3,919	1,281
Conservancy:							
North ...	6,269	5,629	640	3,421	85	2,208	555
South ...	6,830	5,982	848	4,271	122	1,711	726

ENDED 30TH SEPTEMBER, 1954—SUMMARY BY CONSERVANCIES

Total plants used	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
122,402	24,971	8,218	1,224	16,261	4,310	11,653	28,689	6,117	5,741	14,375	843
39,729	7,138	4,995	243	3,574	1,980	3,463	5,939	4,463	4,108	3,382	444
5,875	1,280	856	29	667	188	340	1,071	535	195	663	51
15,456	3,977	335	39	2,301	474	897	4,593	535	245	1,922	138
6,382	676	1,856	42	24	265	1,066	1	1,327	840	162	123
4,363	337	687	52	121	772	402	—	593	1,270	63	66
5,441	598	594	20	415	93	605	268	1,001	1,349	490	8
1,302	234	597	—	—	133	1	6	122	156	52	1
910	36	70	61	46	55	152	—	350	53	30	57
59,092	16,117	1,257	960	9,221	1,383	5,611	16,233	284	430	7,376	220
15,784	7,196	106	471	1,584	368	1,051	3,018	13	25	1,935	17
14,913	6,239	555	358	2,624	530	1,482	1,083	78	217	1,626	121
15,705	710	253	38	3,780	383	1,723	6,144	141	130	2,357	46
12,690	1,972	343	93	1,233	102	1,355	5,988	52	58	1,458	36
23,581	1,716	1,966	21	3,466	947	2,579	6,517	1,370	1,203	3,617	179
11,748	611	752	18	850	562	1,192	3,834	654	632	2,566	77
11,833	1,105	1,214	3	2,616	385	1,387	2,683	716	571	1,051	102

SUMMARY OF SPECIES USED FOR PLANTING AND BEATING UP

Appendix 10

Thousands of plants

Year ended 30th September 1954

SPECIES	GREAT BRITAIN				ENGLAND			SCOTLAND			WALES		
	Total	Planting	Beating up	Total	Total	Planting	Beating up	Total	Planting	Beating up	Total	Planting	Beating up
All Species	122,402	107,492	14,910	39,729	34,609	5,120	59,092	52,794	6,298	23,581	20,089	3,492	
Scots Pine...	24,971	21,344	3,627	7,138	5,944	1,194	16,117	14,309	1,808	1,716	1,091	625	
Corsican Pine	8,218	6,568	1,650	4,995	4,031	964	1,257	964	293	1,966	1,573	393	
European Larch	1,224	1,130	94	243	230	13	960	882	78	21	18	3	
Japanese Larch	16,261	13,736	2,525	3,574	3,099	475	9,221	7,765	1,456	3,466	2,872	594	
Douglas Fir	4,310	3,509	801	1,980	1,690	290	1,383	1,095	288	947	724	223	
Norway Spruce	11,653	10,717	936	3,463	3,189	274	5,611	5,142	469	2,579	2,386	193	
Sitka Spruce	28,689	26,651	2,038	5,939	5,487	452	16,233	15,388	845	6,517	5,776	741	
Tsuga heterophylla	245	212	33	100	97	3	57	49	8	88	66	22	
Thuja plicata	829	730	99	190	169	21	123	106	17	516	455	61	
Pinus contorta	9,958	8,519	1,439	2,248	1,902	346	5,820	5,038	782	1,890	1,579	311	
Hybrid Larch	462	404	58	1	1	—	438	384	54	23	19	4	
Lawson Cypress	641	530	111	218	201	17	84	67	17	339	262	77	
Picea omorika	404	387	17	221	207	14	159	156	3	24	24	—	
Abies grandis	345	320	25	301	280	21	2	—	2	42	40	2	
Spanish Chestnut	79	68	11	57	47	10	—	—	—	22	21	1	
Birch	226	164	62	190	139	51	10	2	8	26	23	3	
Beech	5,741	4,927	814	4,108	3,472	636	430	349	81	1,203	1,106	97	
Oak	6,117	5,691	426	4,463	4,149	314	284	267	17	1,370	1,275	95	
Sycamore	143	121	22	32	26	6	100	84	16	11	11	—	
Other Conifers	1,491	1,412	79	103	92	11	693	652	41	695	668	27	
Other Broadleaved	395	352	43	165	157	8	110	95	15	120	100	20	

SUMMARY AREA STATEMENT OF LAND USE: BY CONSERVANCIES

Appendix 11

At 30th September, 1954

Acres

Country or Conservancy	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural, Unplantable, &c.
GREAT BRITAIN	2,038,136	43,028	27,409	935,744	318,333	784,059
ENGLAND:	646,590	11,686	11,308	378,581	105,463	162,546
North West Conservancy	104,101	1,443	2,066	59,964	19,236	24,901
North East Conservancy	208,159	7,639	1,605	105,151	38,596	64,412
East Conservancy ...	107,710	919	2,186	77,119	11,811	18,780
South East Conservancy	54,335	310	2,309	36,338	15,587	2,410
South West Conservancy	68,959	804	2,464	47,187	16,088	5,684
New Forest	76,934	478	340	31,452	2,962	42,520
Dean Forest	26,392	93	338	21,370	1,183	3,839
SCOTLAND:	1,117,107	23,443	10,901	390,917	164,998	561,192
North Conservancy ...	425,480	3,930	3,886	99,937	49,721	275,822
East Conservancy ...	192,993	3,534	4,883	113,077	30,282	49,634
South Conservancy ...	236,270	8,882	1,148	83,436	59,920	92,914
West Conservancy ...	262,364	7,097	984	94,467	25,075	142,822
WALES:	274,439	7,899	5,200	166,246	47,872	60,321
North Conservancy ...	147,157	3,506	2,763	86,153	21,663	39,341
South Conservancy ...	127,282	4,393	2,437	80,093	26,209	20,980

Note.—In Appendices 12–14, former Crown Woods are indicated by asterisks.

AREA STATEMENT OF LAND USE: BY FORESTS—ENGLAND

Appendix 12

At 30th September, 1954

Acres

Forest	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural, Unplantable, &c.
NORTH WEST CONSERVANCY: TOTAL	104,101	1,443	2,066	59,964	19,236	24,901
Arden, Warwick	682	—	—	—	682	—
Bagot, Staffs	1,221	—	53	420	801	—
Bawtry, Notts	586	2	—	398	140	48
Blengdale, Cumberland ...	1,138	173	—	939	135	64
Bowland, Lancs & Yorks...	935	—	4	167	728	40
Cannock, Staffs	6,118	—	93	5,748	317	53
Causeway Wood, Salop ...	278	—	—	—	278	—
Charnwood, Leicester ...	275	—	23	89	186	—
Corvedale, Salop	350	25	—	110	218	22
Cotgrave, Notts	370	—	48	349	21	—
Dalton, Westmorland ...	833	32	53	483	258	92
Delamere, Cheshire* ...	1,943	—	20	1,917	—	26
Ennerdale, Cumberland ...	7,581	—	—	2,558	62	4,961
Foremark Woods, Derby...	390	—	—	6	384	—
Foulshaw Wood, Westmorland	601	30	—	59	542	—
Gisburn, Yorks	2,674	394	—	1,870	703	101
Greystoke, Cumberland ...	1,955	—	49	1,653	60	242
Grizedale, Lancs	6,022	29	162	4,421	679	922

Appendix 12—continued

Forest	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural, Unplantable, &c.
Haberley, Salop	753	—	73	117	616	20
Hardknott, Cumberland & Lancs	8,055	99	—	1,510	457	6,088
Hope, Derby	2,987	—	—	669	346	1,972
Inglewood, Cumberland	1,294	—	58	425	820	49
Irton, Cumberland	268	—	—	—	245	23
Kershope, Cumberland	12,504	130	—	9,265	185	3,054
Kinver, Staffs	900	—	—	571	299	30
Long Mynd, Salop	926	116	18	615	193	118
Longtown, Cumberland	271	—	30	84	122	65
Mortimer, Hereford & Salop	8,583	—	267	7,763	485	335
Oakamoor, Staffs	1,030	—	96	163	865	2
Packington, Warwick	402	—	35	131	271	—
Sherwood, Derby, Notts & Yorks	13,728	114	482	10,523	2,834	371
Spadeadam, Cumberland	8,909	227	3	503	3,396	5,010
Swynnerton, Staffs... ..	2,157	—	345	1,142	994	21
Thornthwaite, Cumberland	5,521	72	67	3,775	591	1,155
Walcot, Salop	1,555	—	87	1,521	17	17
Walton Woods, Cumberland	306	—	—	—	306	—
NORTH EAST CONSERVANCY:						
TOTAL	208,159	7,639	1,605	105,151	38,596	64,412
Allerston, Yorks	10,623	273	112	9,238	517	868
Ampleforth, Yorks	4,196	375	234	2,433	1,436	327
Arkengarthdale, Yorks	1,340	—	—	1,121	—	219
Chopwell, Durham*	1,620	—	103	918	630	72
Cleveland, Yorks	3,238	121	136	585	2,626	27
Doncaster, Yorks	734	—	75	246	481	7
Hambleton, Yorks... ..	2,794	46	—	575	1,918	301
Hamsterley, Durham	6,074	—	171	5,251	447	376
Harwood, Northumberland	6,803	815	—	2,419	3,062	1,322
Jervaulx, Yorks	1,470	23	72	208	1,258	4
Kidland, Northumberland	1,048	170	50	294	754	—
Kielder, Northumberland... ..	70,875	2,267	39	38,384	6,830	25,661
Knaresborough, Yorks	533	152	—	343	190	—
Langdale, Yorks	14,602	185	108	5,279	1,273	8,050
Londesborough, Yorks	473	—	62	275	198	—
Ray, Northumberland	1,362	291	41	742	620	—
Redesdale, Northumberland	17,627	711	—	10,390	1,279	5,958
Rosedale, Yorks	10,807	516	16	4,681	2,054	4,072
Rothbury, Northumberland	3,097	85	88	1,948	1,006	143
Scardale, Yorks	972	5	55	635	45	292
Selby, Yorks	1,045	—	—	863	180	2
Slaley, Northumberland	1,500	—	20	1,271	—	229
Tong Woods, Yorks	195	—	66	66	129	—
Wark, Northumberland	36,353	1,513	—	15,681	7,404	13,268
Weardale, Durham	4,386	—	—	—	1,317	3,069
Wharnciffe, Yorks	1,105	—	95	317	730	58
Widehaugh, Northumber-land	70	—	—	—	—	70
Wynyard, Durham	1,573	91	14	181	1,387	5
York, Yorks	1,644	—	48	807	825	12
EAST CONSERVANCY:						
TOTAL	107,710	919	2,186	77,119	11,811	18,780
Amphthill, Beds	1,087	11	1	399	607	81
Bardney, Lincoln	3,657	4	270	2,944	537	176

Appendix 12—continued

Forest	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural, Unplantable, &c.
Bernwood, Oxford ...	1,041	—	102	275	766	—
Bramfield, Herts ...	688	—	93	400	266	22
Burwell, Lincs ...	581	—	79	345	236	—
Chilterns, Bucks & Oxford	2,642	42	112	1,302	1,305	35
Ditton, Cambridge ...	181	—	53	54	127	—
Dunwich, Suffolk ...	1,284	22	61	1,079	178	27
Gaywood, Norfolk ...	711	9	103	339	355	17
Hazelborough, Bucks & Northants*	2,546	2	46	2,013	180	353
Hevingham, Norfolk ...	999	—	164	570	409	20
Kesteven, Lincoln & Rutland ...	3,477	39	178	2,370	675	432
The King's Forest, Suffolk	5,932	78	57	5,168	471	293
Laughton, Lincoln ...	2,144	—	—	2,015	62	67
Nassburgh, Northants ...	332	—	45	45	287	—
Pytchley, Northants ...	346	—	49	49	297	—
Rendlesham, Suffolk ...	4,715	8	—	3,650	81	984
Rockingham, Northants ...	5,521	20	172	4,626	345	550
Salcey, Bucks & Northants*	1,279	—	9	1,201	47	31
Shouldham, Norfolk ...	1,290	59	23	859	327	104
Swaffham, Norfolk ...	3,813	26	24	3,231	41	541
Swanton, Norfolk ...	2,138	18	43	1,460	458	220
Thetford Chase, Norfolk & Suffolk ...	49,527	329	224	34,895	1,731	12,901
Tunstall, Suffolk ...	3,573	71	—	2,723	133	717
Walden, Essex ...	456	11	37	121	330	5
Walsham, Norfolk ...	811	—	82	268	539	4
Waveney, Suffolk ...	284	85	14	180	65	39
Wigsley, Lincoln & Notts...	2,184	39	141	1,363	461	360
Willingham, Lincoln ...	2,228	46	4	1,764	359	105
Yardley Chase, Beds & Northants ...	2,243	—	—	1,411	136	696
SOUTH EAST CONSERVANCY:						
TOTAL ...	54,335	310	2,309	36,338	15,587	2,410
Abinger, Surrey ...	1,006	—	84	344	503	159
Alice Holt, Hants*	2,342	—	52	2,008	44	290
Alton, Hants ...	948	5	84	714	121	113
Andover, Hants ...	1,000	—	69	840	13	147
Arundel, Sussex ...	2,566	—	78	2,157	379	30
Ashley Hill, Berks ...	301	—	51	100	198	3
Basing, Hants ...	211	—	19	204	7	—
Bedgebury, Kent & Sussex*	2,375	—	51	2,041	116	218
Bere, Hants ...	1,655	22	—	1,362	264	29
Bishopstoke, Hants ...	299	—	46	285	14	—
Bramshill, Berks & Hants...	4,483	33	106	3,972	407	104
Brightling, Sussex ...	1,450	6	162	251	1,182	17
Bucklebury, Berks ...	285	—	70	146	139	—
Buscot, Berks ...	578	—	—	146	432	—
Challock, Kent ...	1,795	6	143	1,511	278	6
Charlton, Sussex ...	2,534	57	71	1,537	997	—
Chiddingfold, Surrey & Sussex ...	2,196	—	—	1,780	410	6
Corhampton, Hants ...	276	—	—	3	273	—
Crawley, Hants ...	315	—	—	315	—	—
Effingham, Surrey ...	420	—	63	96	323	1
Friston, Sussex ...	2,141	—	—	1,723	393	25
Gravetye, Sussex ...	910	11	3	395	22	493

Appendix 12—continued

Forest	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural, Unplantable, &c.
Groombridge, Sussex ...	112	—	4	103	—	9
Havant, Hants ...	1,343	—	103	223	1,118	2
Hemsted, Kent ...	1,024	—	12	984	6	34
Hursley, Hants ...	2,360	—	168	931	1,429	—
Lyminge, Kent ...	2,495	—	95	2,413	18	64
Marden, Sussex ...	1,313	52	—	812	400	101
Maresfield, Sussex ...	738	—	76	175	561	2
Micheldever, Hants ...	2,352	—	128	1,935	288	129
Mildmay, Kent ...	272	—	59	131	141	—
Orlestone, Kent ...	814	—	26	782	30	2
Pen, Hants ...	221	—	—	21	200	—
Queen Elizabeth Forest, Hants & Sussex	1,828	—	8	1,424	130	274
Rogate, Sussex ...	600	—	65	264	304	32
St. Leonards, Sussex ...	958	—	56	328	602	28
Shipbourne, Kent ...	416	—	54	240	174	2
Slindon, Sussex ...	1,358	99	25	947	411	—
Southwater, Sussex ...	395	—	55	363	31	1
Vinehall, Sussex ...	974	—	75	816	141	17
Walderslade, Kent ...	200	—	—	13	187	—
Westbury, Hants ...	490	—	—	350	130	10
Westerham, Kent ...	32	—	—	—	32	—
Wilmington, Sussex ...	881	—	76	265	578	38
Winterfold, Surrey ...	321	—	29	71	250	—
Witley Park, Surrey ...	675	19	43	190	485	—
Woolmer, Hants* ...	2,073	—	—	627	1,426	20
Woking Office Grounds ...	4	—	—	—	—	4
SOUTH WEST CONSERVANCY:						
TOTAL ...	68,959	804	2,464	47,187	16,088	5,684
Aconbury, Hereford ...	615	—	—	—	615	—
Bentley, Hants & Wilts ...	1,778	—	225	336	1,429	13
Blandford, Dorset ...	2,826	26	263	1,023	1,594	209
Bodmin, Cornwall ...	1,492	8	49	1,202	120	170
Bradon, Wilts ...	1,134	—	118	535	597	2
Brendon, Somerset ...	2,546	17	85	2,035	205	306
Bruton, Somerset & Wilts	975	—	65	935	32	8
Charmouth, Devon & Dorset ...	920	14	47	560	317	43
Collingbourne, Wilts ...	1,239	—	—	1,221	8	10
Cowley Woods, Gloucester	179	—	23	49	129	1
Croft Pascoe, Cornwall ...	112	10	—	10	102	—
Dartmoor, Devon ...	2,287	—	5	1,677	4	606
Dunster, Somerset ...	1,132	104	11	1,060	72	—
Dymock, Gloucester & Hereford* ...	1,719	—	—	1,495	153	71
Eggesford, Devon ...	881	—	—	841	20	20
Erme, Devon ...	642	—	31	98	537	7
Fernworthy, Devon ...	1,505	25	—	1,496	6	3
Gardiner, Dorset & Wilts	1,711	4	10	745	958	8
Glynn, Cornwall ...	2,246	13	169	1,685	431	130
Haldon, Devon ...	3,587	—	99	3,225	231	131
Halwill, Devon ...	4,572	16	77	3,757	185	630
Hartland, Devon ...	2,567	85	—	1,604	346	617
Haugh, Hereford ...	606	—	—	551	35	20
Herodsfoot, Cornwall ...	740	1	61	496	217	27
Honiton, Devon ...	754	71	—	211	516	27
Lydford, Devon ...	597	—	4	546	9	42

Appendix 12—continued

Forest	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural Unplantable, &c.
Mendip, Somerset ...	1,223	4	1	1,139	2	82
Moccas, Hereford ...	451	—	40	40	411	—
Molton Woods, Devon ...	336	—	52	124	212	—
Neroche, Somerset ...	1,957	30	1	691	1,213	53
Okehampton, Devon ...	519	50	10	454	25	40
Pershore, Worcs ...	361	6	24	65	295	1
Plym, Devon ...	1,393	—	194	962	427	4
Poorstock, Dorset ...	625	1	64	276	349	—
Purbeck, Dorset ...	1,595	21	29	1,224	263	108
Quantock, Somerset ...	2,630	49	—	2,135	136	359
St. Clement, Cornwall ...	282	—	62	141	141	—
Savernake, Wilts ...	4,678	—	287	2,418	1,807	453
Sedgemoor, Somerset ...	385	2	47	207	178	—
Shepton, Somerset ...	160	—	4	155	5	—
Stanway, Gloucester ...	1,150	7	—	359	147	644
Stokeleigh, Somerset ...	639	1	51	394	235	10
Wareham, Dorset ...	5,642	233	51	3,956	1,272	414
West Woods, Wilts ...	1,197	—	52	842	64	291
Wilsay Down, Cornwall ...	1,182	6	—	1,117	—	65
Wyre, Worcester ...	3,192	—	153	3,095	38	59
NEW FOREST:						
TOTAL	76,934	478	340	31,452	2,962	42,520
Brighstone, Isle of Wight ...	1,526	119	—	1,196	154	176
Combley, Isle of Wight ...	559	—	—	548	—	11
Ferndown, Dorset ...	1,633	—	17	1,007	111	515
Hurn, Hants ...	1,957	218	3	312	852	793
New Forest, Hants* ...	65,448	—	277	23,440	1,596	40,412
Osborne, Isle of Wight ...	134	—	17	85	49	—
Parkhurst, Isle of Wight* ...	1,312	—	8	957	50	305
Ringwood, Dorset & Hants	3,962	141	1	3,704	21	237
Shalfleet, Isle of Wight ...	403	—	17	203	129	71
DEAN FOREST:						
TOTAL	26,392	93	338	21,370	1,183	3,839
Dean Forest, Gloucester, Hereford & Monmouth*	25,135	93	322	20,158	1,183	3,794
Tidenham Chase, Gloucester	1,257	—	16	1,212	—	45

AREA STATEMENT OF LAND USE: BY FORESTS—SCOTLAND

Appendix 13

At 30th September, 1954

Acres

Forest	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural, Unplantable, &c.
NORTH CONSERVANCY:						
TOTAL	425,480	3,930	3,886	99,937	49,721	275,822
Achnashellach, Ross	19,674	19	—	929	24	18,721
Aigas, Inverness	1,593	—	150	175	751	667
Ardross, Ross	22,457	3	98	3,753	813	17,891
Assich, Nairn	1,119	—	32	772	39	308
Balblair, Sutherland & Ross	1,541	—	102	1,253	62	226
Battan, Inverness	1,036	—	306	643	305	88
Boblainy, Inverness	2,895	135	215	1,535	1,225	135
Borgie, Sutherland	2,706	48	4	1,116	197	1,393
Ceannacroc, Inverness	19,881	305	—	830	3,279	15,772
Clach Liath, Ross	2,187	—	—	555	1,321	311
Clunes, Inverness	6,055	—	2	1,429	177	4,449
Craig nan Eun, Inverness... ..	1,922	—	—	1,370	—	552
Craig Phadrig, Inverness	573	—	11	498	2	73
Craigs, Ross	1,795	—	181	575	1,119	101
Culloden, Inverness	2,438	27	283	2,193	96	149
Dornoch, Sutherland	727	—	—	670	4	53
Dunnet, Caithness	75	—	—	—	75	—
Eilanreach, Inverness	922	—	—	835	—	87
Farigaig, Inverness	7,557	15	155	1,351	2,004	4,202
Ferness, Nairn	1,538	39	115	1,007	18	513
Findon, Ross	2,366	—	—	2,240	14	112
Fjunary, Argyll	18,341	200	—	3,875	1,524	12,942
Glen Affric, Inverness	53,409	332	—	2,750	5,473	45,186
Glen Brittle, Skye, Inverness	17,449	81	—	1,522	844	15,083
Glen Cripesdale, Argyll	6,650	—	—	—	2,168	4,482
Glen Garry, Inverness	21,979	117	—	4,270	690	17,019
Glen Hurich, Argyll	15,180	—	53	2,945	856	11,379
Glen Loy, Inverness	2,546	—	—	1,927	101	518
Glen Righ, Inverness	5,883	118	—	2,325	1	3,557
Glen Shiel, Ross	3,653	—	—	765	—	2,888
Glen Urquhart, Inverness	16,160	94	155	2,934	2,088	11,138
Guisachan, Inverness	5,549	101	—	1,591	1,419	2,539
Inchnacardoch, Inverness... ..	9,145	5	—	2,225	410	6,510
Inshriach, Inverness	16,864	7	112	2,007	4,386	10,471
Inverinate, Ross	1,234	—	—	1,029	—	205
Kessock, Ross	1,208	—	1	1,067	56	85
Kilcoy, Ross	3,423	7	82	2,813	67	543
Lael, Ross	3,129	17	—	1,931	341	857
Laiken, Nairn	845	6	182	702	125	18
Leanachan, Inverness	7,546	321	—	2,996	1,864	2,686
Loch Ericht, Inverness	933	—	—	183	506	244
Longart, Ross	1,522	—	—	1,145	252	125
Millbuie, Ross	7,343	—	194	6,526	206	611
Morangie, Ross	6,195	452	105	3,075	1,531	1,589
Nevis, Inverness	7,659	—	—	980	—	6,679
North Strome, Ross	1,969	—	1	874	—	1,093
Oykell, Ross & Sutherland	2,385	50	200	464	1,755	166
Portclair, Inverness	5,500	—	—	2,353	—	3,147
The Queen's Forest, Inverness	12,500	53	145	3,068	235	9,197
Raasay, Isle of Raasay, Inverness	715	2	52	476	43	196
Ratagan, Inverness & Ross	2,481	—	—	1,558	—	923
Rumster, Caithness	2,362	140	—	695	205	1,462
Salen, Mull, Argyll	10,892	288	41	3,195	2,395	5,302

Appendix 13—continued

Forest	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural, Unplantable, &c.
Shin, Sutherland	13,893	243	159	1,726	1,319	10,848
Slattadale, Ross	1,395	—	—	703	164	528
South Laggan, Inverness ...	4,110	—	—	1,127	—	2,983
South Strone, Ross	3,556	—	—	1,160	22	2,374
Strath Conon, Ross	7,201	250	—	1,515	791	4,895
Strath Dearn, Inverness ...	2,378	28	172	1,148	346	884
Strath Mashie, Inverness ...	2,615	—	168	532	1,525	558
Strath Nairn, Inverness ...	4,314	10	190	1,418	640	2,256
Strathy, Sutherland	504	54	—	54	227	223
Struie, Ross	943	71	—	474	299	170
Sunart, Argyll	2,141	260	8	608	1,012	521
Torrachilty, Ross	7,637	—	153	617	2,153	4,867
Urray, Ross	1,039	—	59	814	155	70
Hoy Experiments, Orkney	32	32	—	32	—	—
Lewis Experiments, Isle of Lewis, Ross	16	—	—	14	—	2
EAST CONSERVANCY:						
TOTAL	192,993	3,534	4,883	113,077	30,282	49,634
Alean, Perth	2,939	205	9	1,450	615	874
Alltcaileach, Aberdeen ...	3,833	—	—	3,565	152	116
Bin, Aberdeen	5,987	—	6	5,166	109	712
Blackcraig, Perth	2,048	—	—	1,524	34	490
Blackhall, Kincardine ...	3,613	—	297	2,441	1,039	133
Blairadam, Fife & Kinross	2,065	10	9	1,665	164	236
Carden, Fife	547	2	1	523	2	22
Clashindarroch, Aberdeen	18,046	351	—	9,566	442	8,038
Corrennie, Aberdeen ...	1,913	7	225	1,081	634	198
Countesswells, Aberdeen ...	703	—	42	590	81	32
Craigvinean, Perth	4,462	95	—	3,173	233	1,056
Culbin, Moray & Nairn ...	7,512	213	368	6,436	467	609
Dallas, Moray	2,073	5	51	956	349	768
Forest of Deer, Aberdeen...	2,251	—	—	2,077	21	153
Delgaty, Aberdeen... ..	1,148	—	151	694	450	4
Drummond Hill, Perth ...	6,196	97	73	3,968	427	1,801
Drumtochty, Kincardine ...	9,793	409	—	3,065	2,506	4,222
Durris, Kincardine	4,388	—	77	3,602	508	278
Edensmuir, Fife	1,701	64	97	1,540	10	151
Elchies, Moray	4,216	—	—	281	2,607	1,328
Faskally, Perth	242	—	—	130	50	62
Fetteresso, Kincardine ...	8,773	298	78	3,926	2,181	2,666
Fonab, Perth	1,558	151	—	331	743	484
Glendevon, Perth & Kinross	915	—	—	876	—	39
Glendoll, Angus	3,713	99	—	427	1,051	2,235
Glenarrochty, Perth	2,440	97	113	445	1,187	808
Glenisla, Angus	10,483	272	98	1,739	2,718	6,026
Glenlivet, Banff	6,919	457	—	4,243	1,189	1,487
Hallyburton, Angus & Perth	1,991	—	504	1,376	602	13
Inglismaldie, Kincardine ...	1,175	—	16	1,139	29	7
Keillour, Perth	1,705	—	21	1,560	101	44
Kemnay, Aberdeen	1,320	—	—	1,166	136	18
Kinfauns, Perth	826	22	14	772	53	1
Kirkhill, Aberdeen	1,955	—	319	1,699	118	138
Ledmore, Perth	137	—	—	—	—	137
Lossie, Moray	1,904	74	15	1,670	—	234
Midmar, Aberdeen	1,340	—	—	802	240	298
Monaughty, Moray	4,345	200	18	3,818	169	358
Montreathmont, Angus ...	2,430	—	—	2,302	84	44

Appendix 13—continued

Forest	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural, Unplantable, &c.
Newton, Moray	175	—	—	—	—	175
Newtyle, Moray	1,928	182	131	1,296	245	387
Pitfichie, Aberdeen	5,170	—	415	2,798	1,192	1,180
Pitmedden, Fife	2,118	1	4	1,711	291	116
Rannoch, Perth	3,786	168	—	1,787	1,602	397
Rosarie, Banff	4,729	—	339	2,841	815	1,073
Roseisle, Moray	2,322	6	4	2,048	—	274
Scotmore, Banff & Moray	820	—	—	804	11	5
Speymouth, Moray	9,142	—	752	6,303	1,957	882
Strathord, Perth	1,156	40	—	1,143	8	5
Teindland, Moray	2,372	—	208	1,666	286	420
Tentsmuir, Fife	4,239	2	—	3,579	37	623
Tilliefour, Aberdeen	4,577	—	176	2,557	293	1,727
Tornashean, Aberdeen	9,278	—	252	1,555	2,044	5,679
Whitehaugh, Aberdeen	1,576	7	—	1,205	—	371
SOUTH CONSERVANCY:						
TOTAL	236,270	8,882	1,148	83,436	59,920	92,914
Forest of Ae, Dumfries	10,717	1,209	—	8,808	1,048	861
Auchenroddan, Dumfries... ..	777	—	—	705	46	26
Bareagle, Wigtown	1,426	—	54	273	833	320
Brownmoor, Dumfries	464	—	79	335	121	8
Cairn Edward, Kirkcudbright	28,482	1,065	5	8,293	10,417	9,772
Cardrona, Peebles	1,860	26	—	1,413	—	447
Carrick, Ayr	32,605	973	—	4,114	4,065	24,426
Castle O'er, Dumfries	2,887	12	42	2,356	169	362
Changue, Ayr	2,389	—	41	1,624	117	648
Clauchrie, Dumfries	639	60	—	564	70	5
Clydesdale, Lanark	424	78	—	78	342	4
Corriedoo, Kirkcudbright	1,022	—	—	955	21	46
Craigieburn, Dumfries	586	—	—	530	5	51
Craik, Roxburgh	4,250	494	1	2,780	789	681
Dalbeattie, Kirkcudbright	4,674	63	38	4,064	176	434
Dalmacallan, Dumfries	1,455	221	—	773	581	101
Dreva, Peebles	1,205	16	84	303	875	27
Dundeugh, Kirkcudbright	5,965	522	—	1,979	2,527	1,459
Duns, Berwick	599	49	37	223	351	25
Edgarhope, Berwick	1,712	63	2	1,149	68	495
Elibank, Peebles & Selkirk	5,594	299	—	2,180	1,680	1,734
Fleet, Kirkcudbright	1,438	—	4	1,056	174	208
Garcrogo, Kirkcudbright... ..	1,914	120	—	1,470	228	216
The Garraries, Kirkcudbright	7,712	—	—	—	5,158	2,554
Glengap, Kirkcudbright	2,264	241	—	1,327	468	469
Glentress, Peebles	2,349	26	4	1,969	6	374
Glen Trool, Kirkcudbright	55,505	1,406	14	7,830	11,690	35,985
Greskine, Dumfries	2,429	27	126	1,134	1,078	217
Kilgrammie, Ayr	568	—	102	457	111	—
Kilsture, Wigtown	511	—	—	503	4	4
Kirroughtree, Kirkcudbright	10,873	217	160	3,898	3,768	3,207
Laurieston, Kirkcudbright	4,405	295	24	1,930	1,450	1,025
Leithope, Roxburgh	1,165	222	—	740	425	—
Mabie, Kirkcudbright	3,271	92	127	2,094	658	519
Newcastleton, Roxburgh & Dumfries	4,957	—	1	4,559	100	298
Penninghame, Wigtown	5,430	354	—	1,136	2,737	1,557
Saltoun, East Lothian	834	—	38	54	738	42

Appendix 13—continued

Forest	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural Unplantable, &c.
Selm Muir, Midlothian ...	291	—	50	96	194	1
Shielswood, Selkirk ...	1,013	—	—	—	—	1,013
Stenton, East Lothian ...	540	—	85	260	262	18
Twiglees, Dumfries ...	5,137	—	—	4,709	71	357
Wauchope, Roxburgh ...	11,783	534	14	3,890	5,183	2,710
Yair Hill, Selkirk ...	2,145	198	16	825	1,116	204
Bush Nursery, Midlothian	4	—	—	—	—	4
WEST CONSERVANCY:						
TOTAL	262,364	7,097	984	94,467	25,075	142,822
Achaglachgach, Argyll ...	2,147	56	12	1,748	101	298
Ardfin, Jura, Argyll ...	1,178	—	—	20	921	237
Ardgartan, Argyll ...	18,126	85	—	4,362	815	12,949
Asknish, Argyll ...	5,901	451	—	3,723	20	2,158
Barcaldine, Argyll ...	4,005	138	8	3,848	1	156
Benmore, Argyll ...	9,584	82	—	2,835	508	6,241
Carradale, Argyll ...	11,313	530	51	3,947	696	6,670
Carron Valley, Stirling ...	6,640	—	—	4,458	66	2,116
Corlarach, Argyll ...	5,503	254	—	1,577	736	3,190
Dalmally, Argyll ...	867	—	—	—	808	59
Devilla, Fife & Clackmannan	2,506	—	252	1,396	1,031	79
Fearnoch, Argyll ...	1,342	5	22	1,133	—	209
Garadhban, Stirling ...	1,297	—	37	1,106	140	51
Garelochhead, Dunbarton	833	11	42	389	318	126
Garshelloch, Stirling ...	424	—	—	—	369	55
Glenbrantar, Argyll ...	8,712	—	—	3,358	398	4,956
Glencoe, Argyll ...	380	57	—	179	162	39
Glendaruel, Argyll ...	6,996	222	—	1,412	1,633	3,951
Glenduror, Argyll ...	8,319	56	17	2,558	83	5,678
Glenfinart, Argyll ...	8,712	—	22	2,773	388	5,551
Glenrickard, Arran, Bute-shire ...	2,687	92	—	369	714	1,604
Inverinan, Argyll ...	12,796	395	19	4,268	1,433	7,095
Inverliever, Argyll*	29,522	223	107	5,595	1,432	22,495
Kilmichael, Argyll ...	10,930	1,288	—	4,688	994	5,248
Kilmory, Argyll ...	3,169	—	—	370	2,044	755
Knapdale, Argyll ...	19,702	166	204	6,596	113	12,993
Lennox, Stirling ...	580	—	—	535	—	45
Loch Ard, Perth & Stirling	32,050	1,762	149	14,321	4,089	13,640
Loch Eck, Argyll ...	5,502	—	—	2,412	30	3,060
Minard, Argyll ...	5,168	416	—	2,730	800	1,638
Rowardennan, Stirling ...	9,464	257	19	1,116	2,245	6,103
Saddell, Argyll ...	4,917	26	4	1,452	41	3,424
St. Fillans, Perth ...	753	98	—	214	463	76
Strathlachlan, Argyll ...	7,616	389	19	2,403	527	4,686
Strathyre, Perth ...	10,464	38	—	5,623	24	4,817
Tighnabruaich, Argyll ...	1,171	—	—	107	932	132
Torrie, Perth ...	976	—	—	846	—	130
Tulliallan, Fife ...	112	—	—	—	—	112

AREA STATEMENT OF LAND USE: BY FORESTS—WALES

Appendix 14

At 30th September, 1954

Acres

Forest	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural, Unplantable, &c.
NORTH CONSERVANCY:						
TOTAL	147,157	3,506	2,763	86,153	21,663	39,341
Aberhiraunt, Merioneth ...	6,399	322	3	1,928	1,076	3,395
Aeron, Cardigan ...	510	162	—	162	339	9
Bechan, Montgomery ...	367	—	64	304	63	—
Beddgelert, Caernarvon ...	2,929	19	—	1,717	153	1,059
Brynmawr, Cardigan ...	2,592	12	238	1,731	624	237
Carno, Montgomery ...	901	4	94	517	326	58
Ceiriog, Denbigh ...	1,472	—	—	—	1,441	31
Clocaenog, Denbigh & Merioneth ...	15,258	573	20	10,147	1,889	3,222
Coed Clwyd, Denbigh ...	1,772	118	80	1,042	370	360
Coed Penllyn, Merioneth...	1,816	55	221	926	693	197
Coed Sarnau, Radnor ...	4,650	157	75	3,317	144	1,189
Coed y Brenin, Merioneth	18,199	328	92	9,385	1,799	7,015
Coed y Goror, Denbigh & Salop ...	988	25	49	854	109	25
Commins Coch, Montgomery	1,187	15	46	825	105	257
Cynwyd, Merioneth ...	1,831	—	—	1,638	76	117
Dovey, Merioneth & Montgomery	16,708	564	112	11,698	2,197	2,813
Dyfant, Montgomery ...	4,604	21	263	2,510	853	1,241
Elwy, Denbigh ...	167	—	—	—	167	—
Glyn y Groes, Denbigh ...	800	13	143	567	216	17
Gwydyr, Caernarvon & Denbigh	19,492	287	194	11,253	813	7,426
Hafod Fawr, Merioneth*...	1,488	—	—	708	47	733
Hafren, Montgomery ...	10,815	409	23	6,508	1,694	2,613
Kerry, Montgomery & Salop	2,522	32	13	2,310	85	127
Lleyn, Caernarvon ...	909	37	52	208	633	68
Mathrafal, Montgomery ...	2,455	55	157	1,136	1,233	86
Myherin, Cardigan ...	10,593	81	207	5,703	1,368	3,522
Newborough, Anglesey ...	2,536	138	—	1,098	780	658
Pencerrig, Radnor ...	128	—	—	5	123	—
Pentraeth, Anglesey ...	819	—	40	347	432	40
Radnor, Radnor ...	5,878	25	361	3,984	596	1,298
St. Asaph, Denbigh & Flint	2,136	34	114	1,188	852	96
Taliesin, Cardigan ...	1,620	—	102	881	360	379
Tarenig, Cardigan & Montgomery	2,612	20	—	1,556	7	1,049
Chirk Depot, Denbigh ...	4	—	—	—	—	4
SOUTH CONSERVANCY:						
TOTAL	127,282	4,393	2,437	80,093	26,209	20,980
Abergavenny, Monmouth...	22	—	—	—	22	—
Brechfa, Carmarthen ...	15,771	38	288	11,928	248	3,595
Brecon, Brecon ...	1,870	—	11	1,575	—	295
Cairo, Carmarthen ...	4,369	19	109	2,785	508	1,076
Chepstow, Monmouth ...	2,121	—	108	1,495	621	5
Cilgwyn, Carmarthen ...	1,060	—	186	486	573	1
Cilsant, Carmarthen ...	75	—	—	39	34	2
Coed Caerdydd, Glamorgan	861	—	89	222	622	17
Coed Morgannwg, Glamorgan	34,324	1,767	223	22,260	5,791	6,273

Appendix 14—continued

Forest	Total	Planted during year ended 30th September, 1954		Under Plantations	Provisional Allocation of Other Land	
		Afforested	Re-planted		Plantable	Agricultural Unplantable, &c.
Coed Taf Fawr, Brecon ...	2,342	124	24	806	906	630
Coed y Brithdir, Glamorgan	131	—	—	—	129	2
Coed y Rhaiadr, Brecon ...	2,340	88	31	907	1,181	252
Crychan, Brecon & Carmarthen	10,828	280	115	7,212	1,073	2,543
Daugleddau, Pembroke ...	42	—	—	—	42	—
Derry Ormond, Cardigan...	1,365	33	75	968	191	206
Draethen, Glamorgan ...	1,319	—	79	384	916	19
Ebbw, Monmouth ...	472	28	54	359	66	47
Gamrhiw, Brecon ...	681	109	—	305	340	36
Giedd, Brecon ...	746	—	8	589	16	141
Glasfynydd, Brecon ...	3,123	—	—	2,848	172	103
Glyn Tarell, Brecon ...	281	56	—	101	180	—
Gower, Glamorgan ...	407	—	—	305	99	3
Goytre, Monmouth ...	488	—	50	307	177	4
Hay, Brecon & Hereford ...	999	85	—	912	80	7
Hensol, Glamorgan ...	603	9	24	493	15	95
Irfon, Brecon ...	994	56	—	395	509	90
Llandowror, Carmarthen...	296	18	88	200	50	46
Llandeilo, Carmarthen ...	1,021	139	106	481	233	307
Llanover, Monmouth ...	3,636	159	7	2,736	639	261
Llantrisant, Glamorgan ...	801	—	67	796	2	3
Machen, Monmouth ...	1,005	—	79	90	841	74
Monmouth, Monmouth ...	1,212	—	57	493	631	88
Mynydd Ddu, Brecon & Monmouth ...	3,085	235	—	1,990	367	728
Nethergwent, Monmouth...	278	—	—	12	252	14
Pembrey, Carmarthen ...	4,500	236	—	1,964	396	2,140
Penllergaer, Glamorgan ...	538	—	—	414	96	28
St. Gwynno, Glamorgan ...	3,767	154	3	2,897	156	714
Sirhowy, Monmouth ...	594	57	—	129	457	8
Slebech, Pembroke ...	1,748	—	254	850	855	43
Taf Fechan, Brecon ...	1,131	80	5	1,106	—	25
Tair Onen, Glamorgan ...	189	—	—	52	—	137
Talybont, Brecon ...	2,912	157	30	1,536	1,289	87
Teifi, Carmarthen ...	530	32	125	326	204	—
Tintern, Monmouth*	5,087	—	64	4,431	218	438
Towy, Cardigan & Brecon	5,639	434	—	663	4,607	369
Wentwood, Monmouth ...	1,679	—	78	1,246	405	28

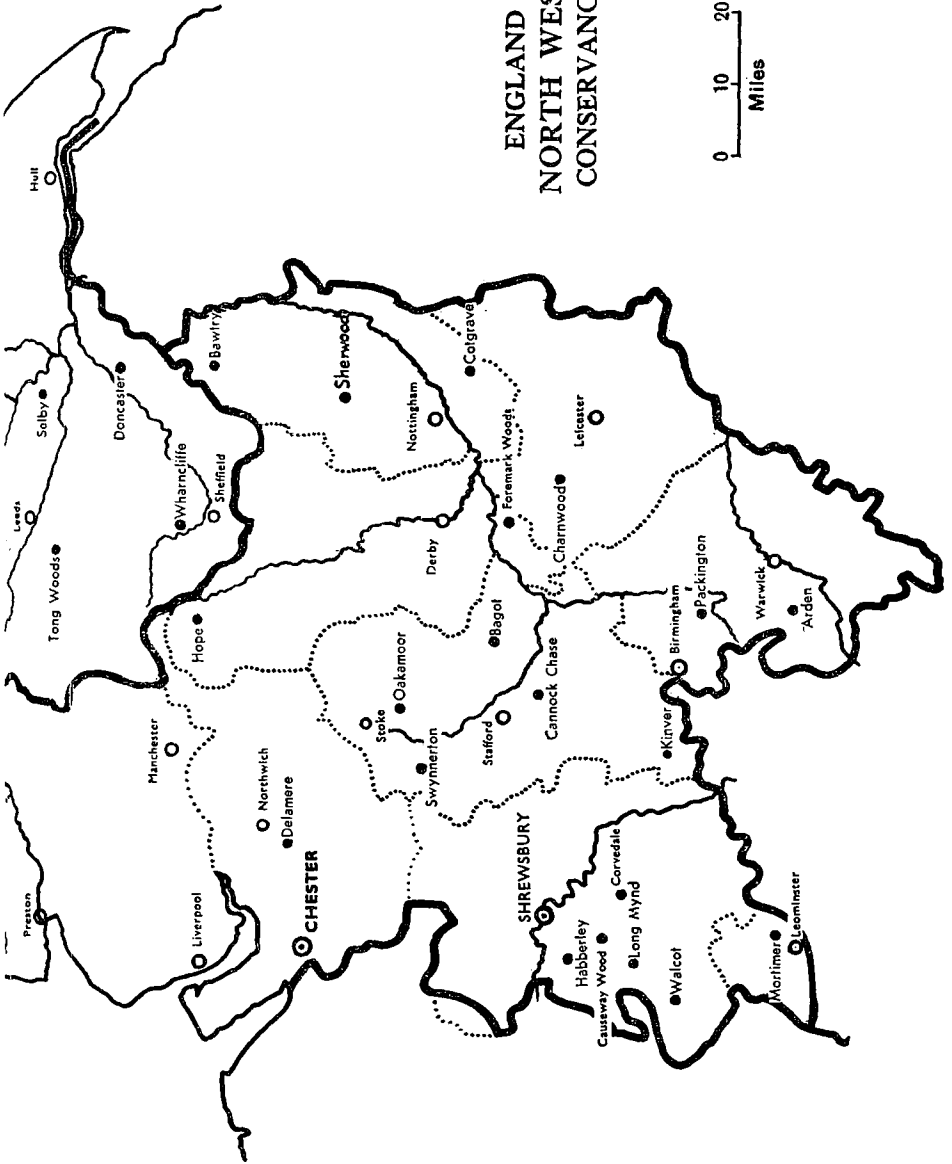
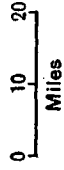
MAPS

Outline maps showing the distribution of the Commission forests, and the boundaries of the Conservancies, as at 30th September 1954, follow overleaf.

ENGLAND NORTH EAST CONSERVANCY



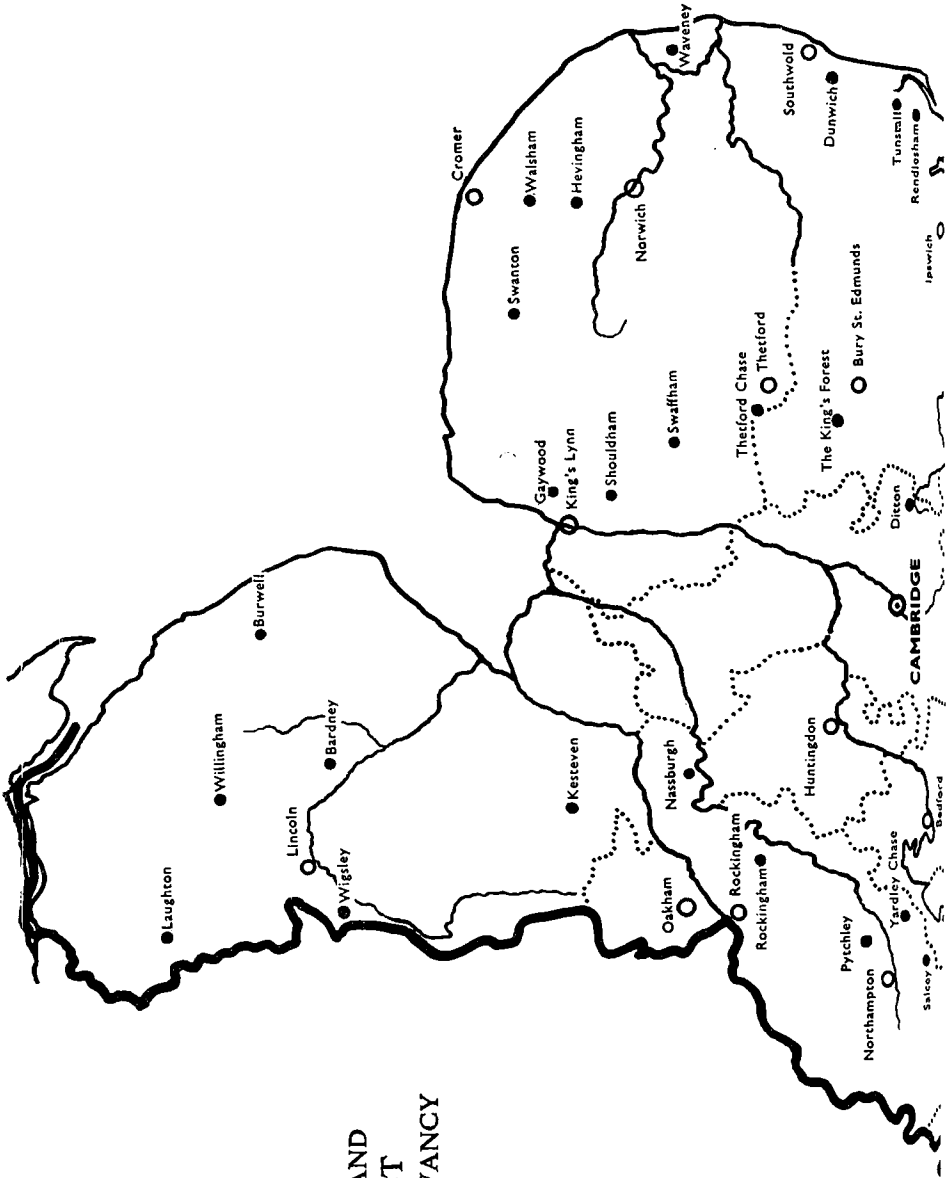
ENGLAND NORTH WEST CONSERVANCY

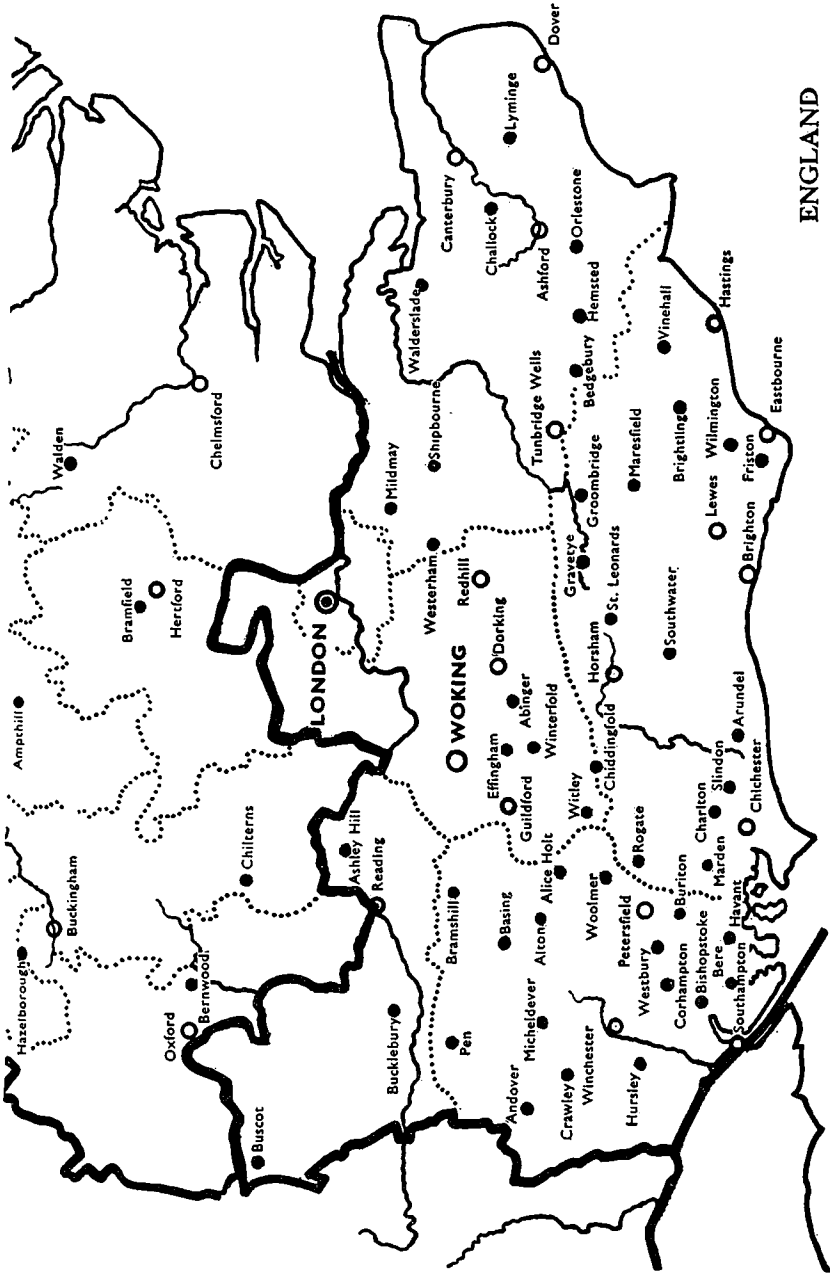


ENGLAND EAST CONSERVANCY

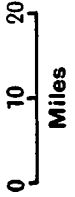
Forests: ●

Towns: ○





**ENGLAND
SOUTH EAST
CONSERVANCY**

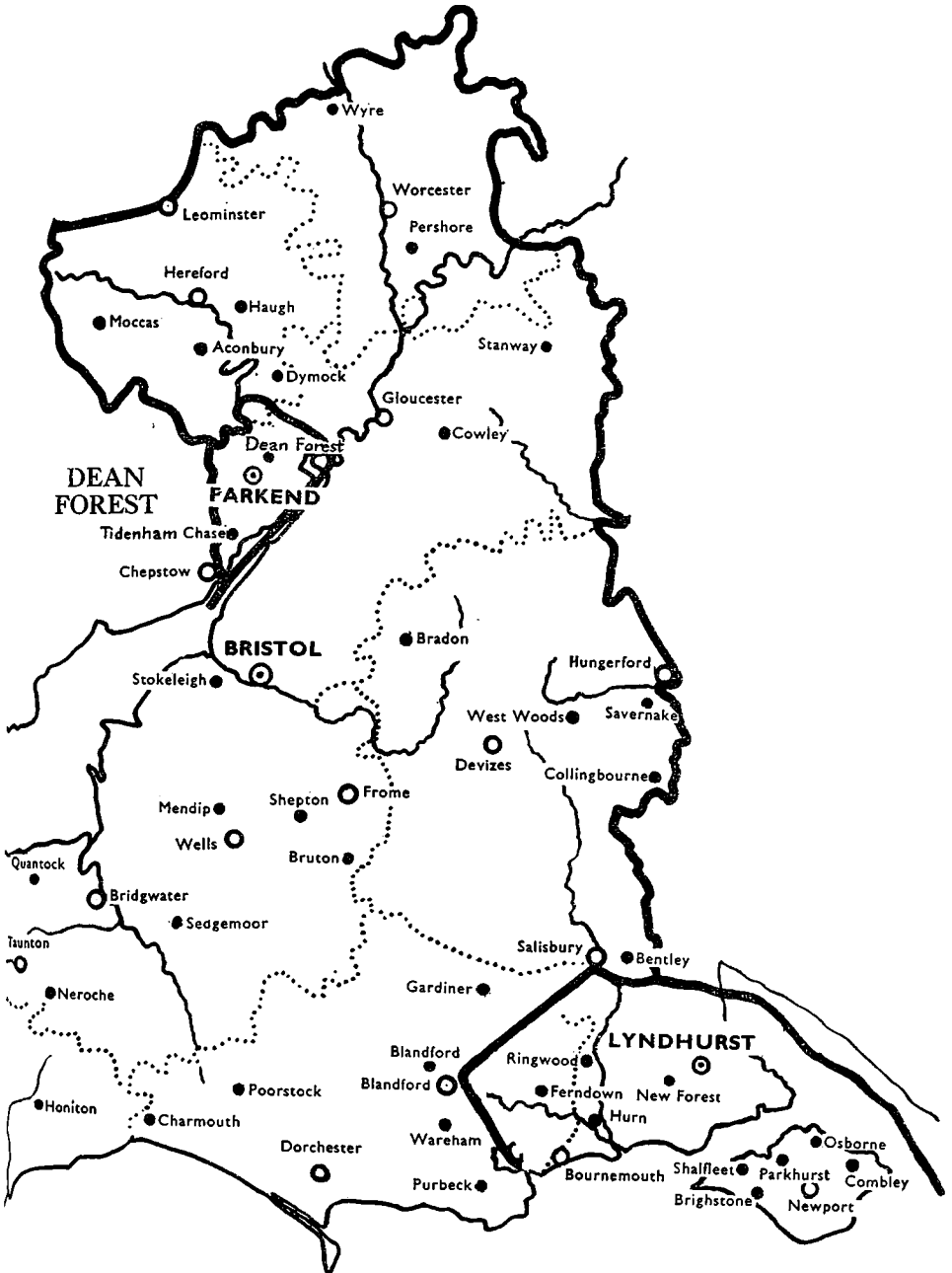


Forests: ●

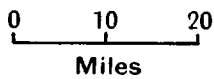
Towns: ○

ENGLAND SOUTH WEST CONSERVANCY





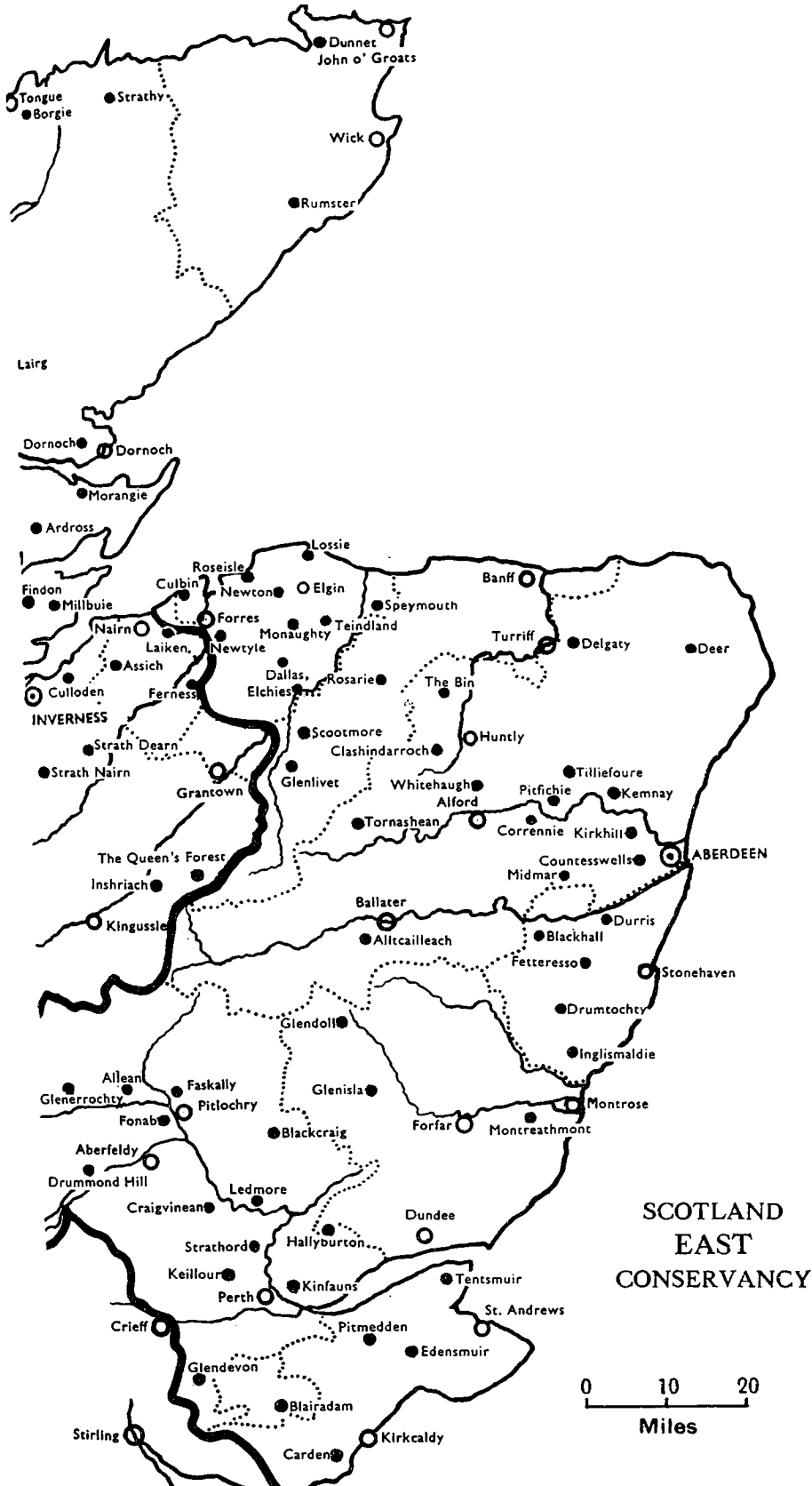
NEW FOREST



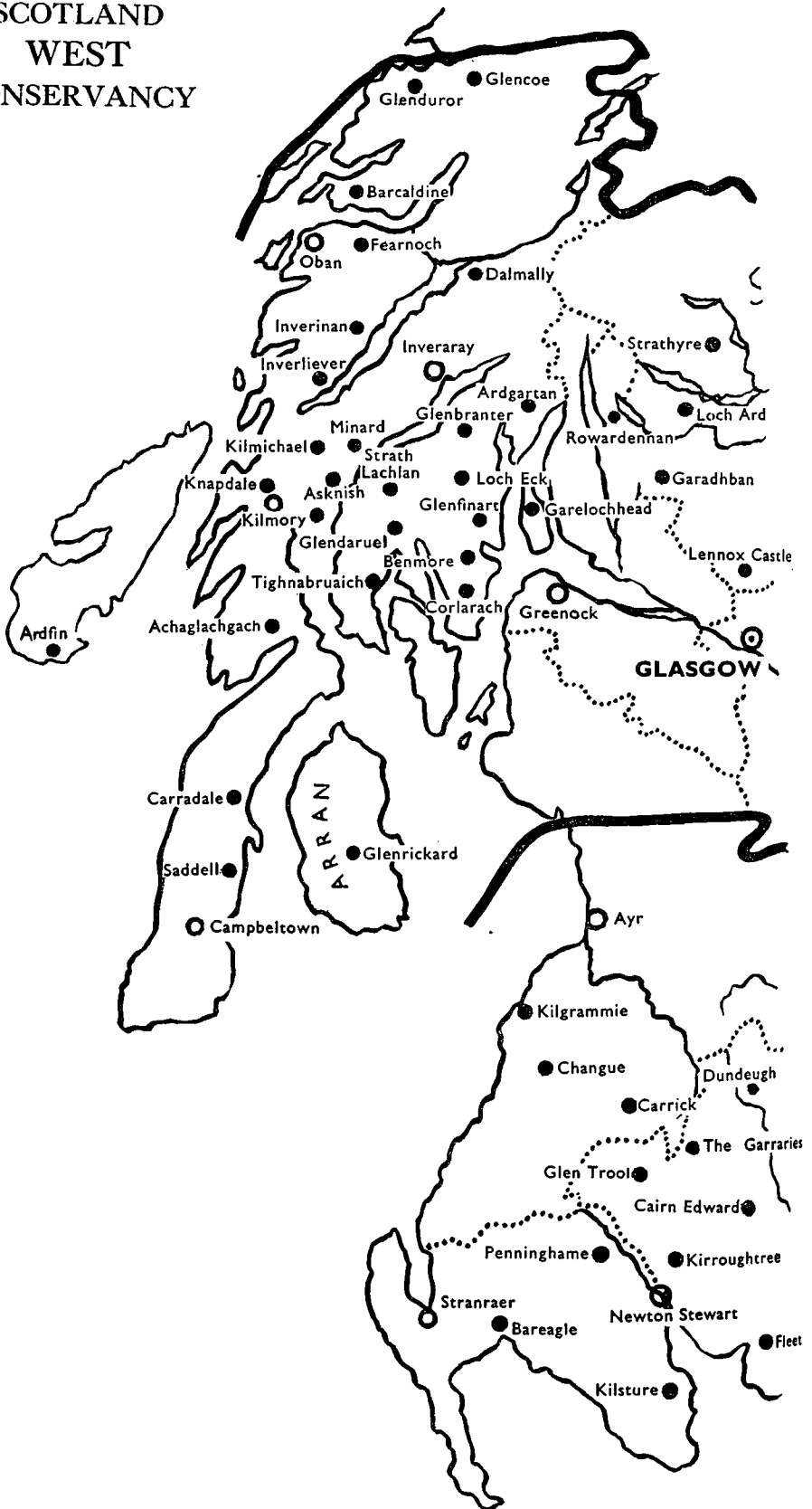
SCOTLAND NORTH CONSERVANCY

- Forests: ●
Towns: ○

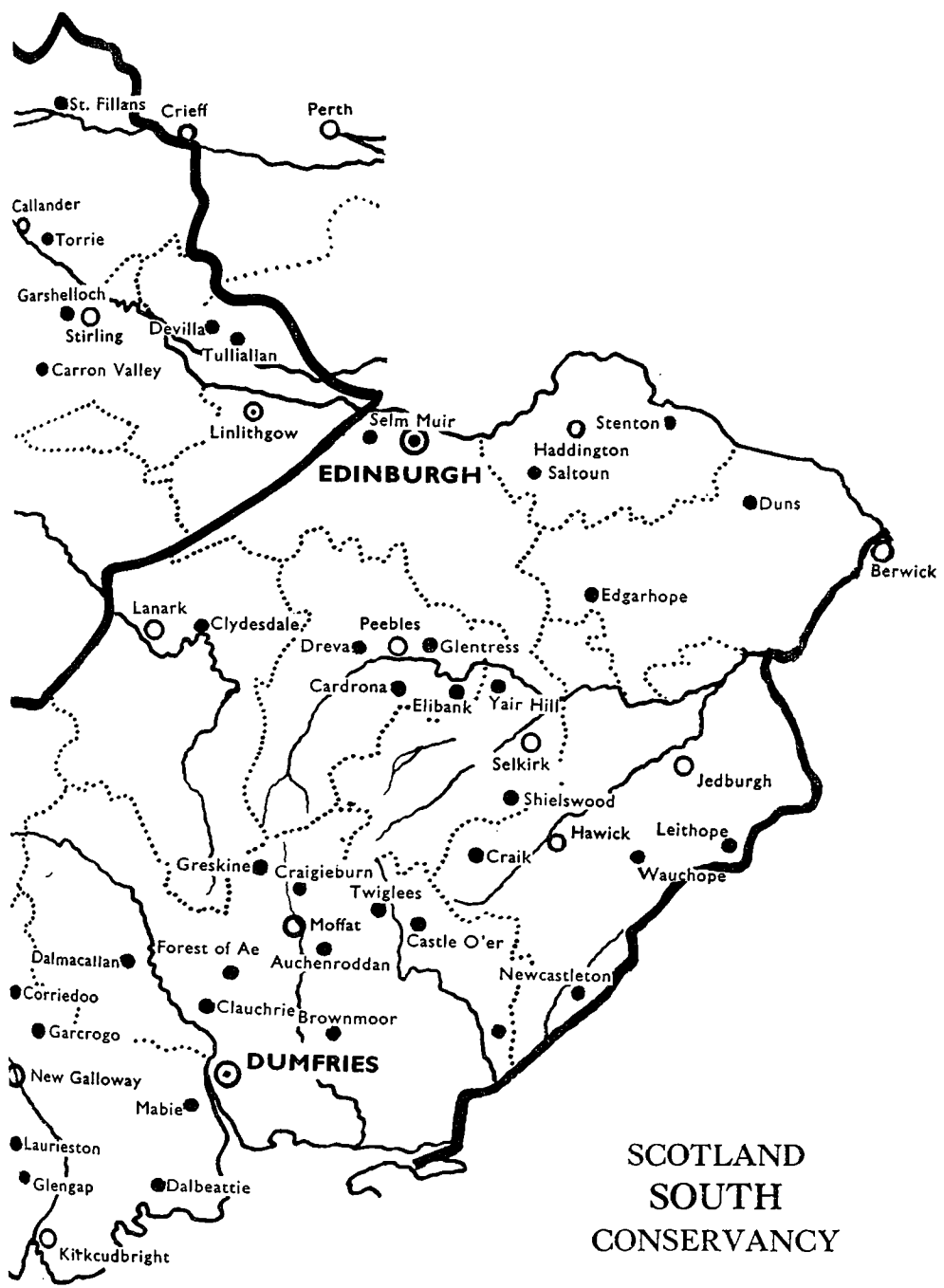




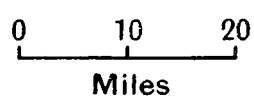
SCOTLAND
WEST
CONSERVANCY



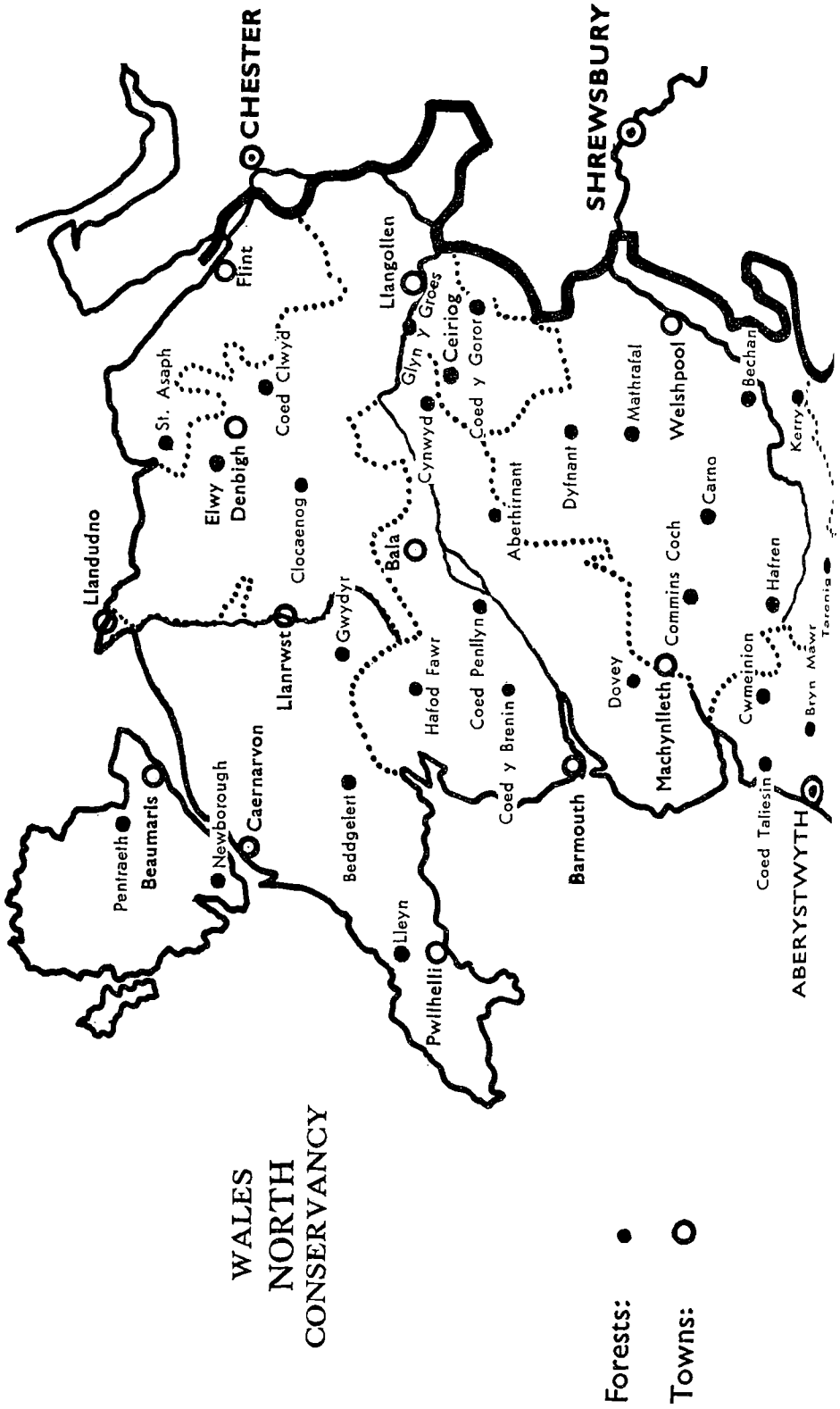
Forests: ●
 Towns: ○

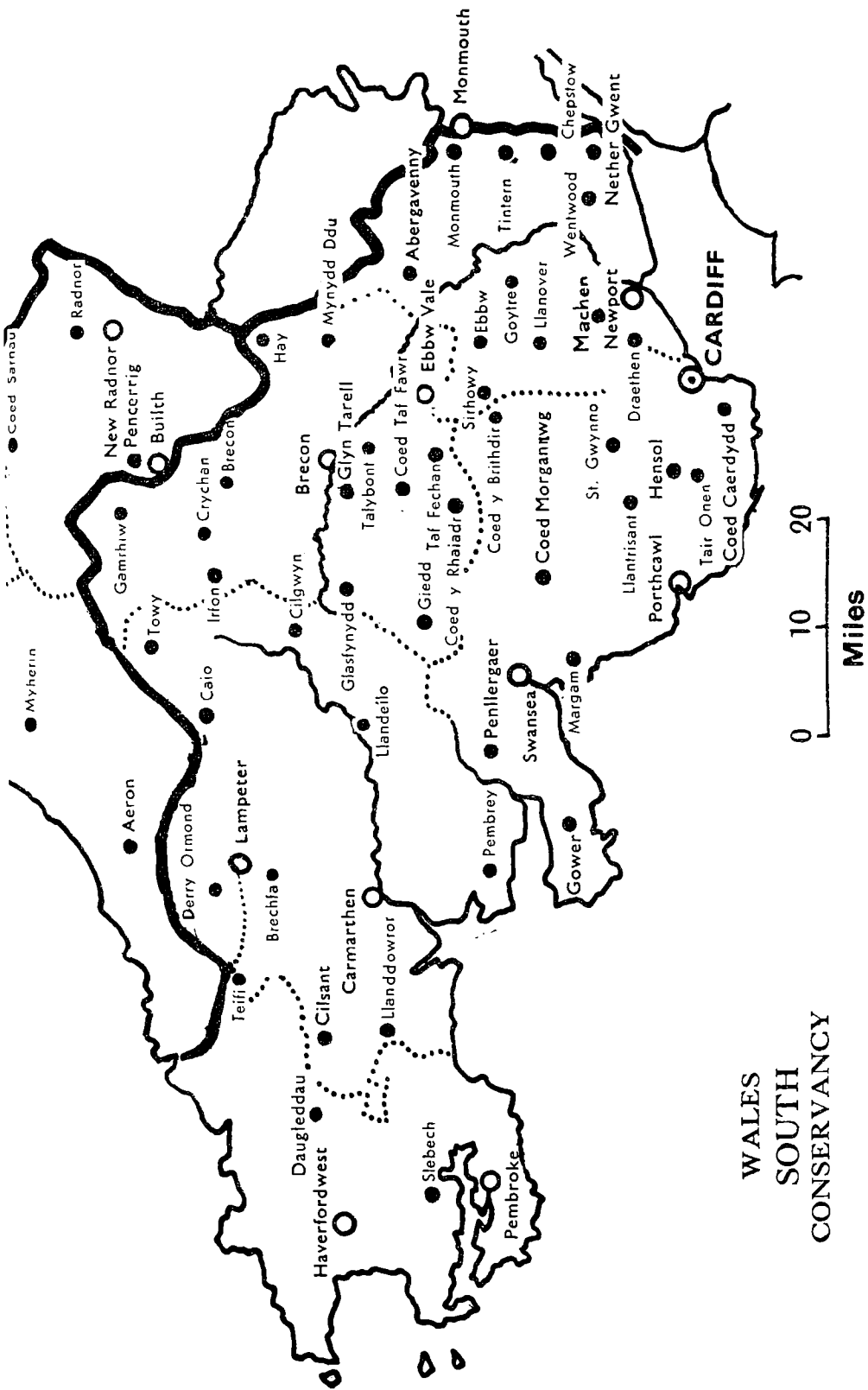


SCOTLAND
 SOUTH
 CONSERVANCY



WALES NORTH CONSERVANCY





WALES
SOUTH
CONSERVANCY

Addresses of the Main Offices of the Forestry Commission

Headquarters of the Forestry Commission:

25, Savile Row, London, W.1. (*Regent* 0221).

Director of Forestry for England:

1, Princes Gate, London, S.W.7. (*Kensington* 9691).

Director of Forestry for Scotland:

25, Drumsheugh Gardens, Edinburgh 3. (*Caledonian* 4782).

Director of Forestry for Wales:

Victoria House, Marine Terrace, Aberystwyth. (*Aberystwyth* 367).

Director of Research and Education:

25, Savile Row, London, W.1. (*Regent* 0221).

Conservancy Offices

England:

North-West: Upton Grange, Upton Heath, Chester. (*Chester* 24006-7).

North-East: Briar House, Fulford Rd., York. (*York* 4684).

East: Brooklands Avenue, Cambridge. (*Cambridge* 54495).

South-East: Danesfield, Grange Rd., Woking. (*Woking* 2270-1).

South-West: Flowers Hill, Brislington, Bristol 4. (*Bristol* 78041-5).

New Forest: The Queen's House, Lyndhurst, Hants. (*Lyndhurst* 300).

Dean Forest: Whitmead Park, Parkend, Lydney, Glos. (*Whitecroft* 305).

Scotland:

North: 60, Church St., Inverness. (*Inverness* 223, 608-9).

East: 6, Queen's Gate, Aberdeen. (*Aberdeen* 33361).

South: Greystone Park, Moffat Rd., Dumfries. (*Dumfries* 1156).

West: 112, West George St., Glasgow, C.2. (*Douglas* 7261-2-3).

Wales:

North: 15, Belmont, Shrewsbury. (*Shrewsbury* 4071-2).

South: St. Agnes Road, Gabalfa, Cardiff. (*Cardiff* 33051).

