

FORESTRY COMMISSION

Nineteenth
Annual Report of the
Forestry Commissioners
for the Year ending
September 30th
1938

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NINETEENTH ANNUAL REPORT

of the

FORESTRY COMMISSIONERS

for the

Year ending September 30th, 1938.

The late Sir Francis Dyke Acland.—The Commissioners record with the deepest regret the loss of their distinguished colleague Sir Francis Acland, who died on the 9th June, 1939. Sir Francis had been intimately associated with the development of British forestry for nearly a quarter of a century. As Parliamentary Secretary to the Board of Agriculture he was Chairman of the Home Grown Timber Supply Committee which was set up in 1915 to promote the war-time utilisation of home-grown timber. In July, 1916, he became Chairman of the Forestry Sub-Committee of the Reconstruction Committee of the Ministry of Reconstruction. The Committee submitted a Report, commonly known as the Acland Report, which led to the establishment of the Forestry Commission and has since remained the basis of Forest Policy. Pending legislation Sir Francis then became Chairman of the Interim Forest Authority which did much useful preparatory work.

When the first Forestry Commissioners were appointed in November, 1919, with the late Lord Lovat as Chairman, Sir Francis accepted at his own wish an appointment as unpaid Commissioner and continued to serve in that capacity and with great loyalty and keenness under successive Chairmen. As lately as Whitsuntide, 1939, although in poor health, he accompanied the Commissioners on part of their annual tour of inspection.

Forest Policy.

GENERAL.

During the year ended 30th September, 1938, the Commissioners have continued to develop both their normal operations, which extend to the whole of Great Britain, and the Special Areas Scheme which relates only to the Statutory Special Areas in the North of England and in South Wales.

Both aspects of the Commissioners' afforestation work are essentially the same involving as they do the acquisition of suitable land, the raising of nursery stock for planting, the forma-

tion of plantations and the establishment of forest workers' holdings.

Taken together substantial progress has to be reported. The total area of plantable land acquired during the year amounted to 64,095 acres compared with 42,295 acres in 1937, the stocks of transplants in the nurseries have been greatly increased, the area planted in 1938 was 24,089 acres compared with 20,107 acres in 1937, and the number of forest workers' holdings established was 77 in 1938 against 31 in 1937.

It has been the Commissioners' constant endeavour, while not neglecting the promotion of afforestation in the country as a whole, to push forward the Special Areas Scheme. The results, however, have not attained their expectations. While suitable land has been offered freely in other parts of the country, and especially in Scotland, the supply in the vicinity of the Special Areas has proved inadequate. Thus of the total area of 64,095 plantable acres acquired during the year only 17,478 acres were in the vicinity of the Special Areas. The planting programme and provision of forest workers' holdings are obviously limited by the area of plantable land which is acquired, but apart from this it has been found impossible in a number of cases to obtain suitable contracts for building forest workers' cottages. As a rule these cottages are grouped together in small numbers and it appeared that in the face of competition for defence works contractors were not disposed to quote prices which the Commissioners were able to accept.

In consequence of the difficulty in arranging contracts for building in stone or brick in certain districts, the Commissioners have had recourse, experimentally, to timber construction. The timber-built houses have been designed to contain the same accommodation in all respects as those built to the usual specifications. They have proved quite satisfactory and have also the advantage that they can be erected and occupied in much less time.

APPOINTMENT OF COMMISSIONER.

Mr. William Ling Taylor, formerly Assistant Commissioner for England and Wales, was appointed a paid whole-time Commissioner on 8th November, 1938. Mr. Taylor's place as Assistant Commissioner was filled by the promotion of Mr. O. J. Sangar, Divisional Officer in charge of the Census and Plans Branch.

THE SPECIAL AREAS.

England and Wales.

The scheme for the acceleration of afforestation and creation of forest workers' holdings in the Special Areas (Durham and Tyneside, Haltwhistle, West Cumberland and South Wales) was

formulated in 1935 at the request of the Commissioner for the Special Areas in England and Wales, in whose opinion afforestation had a high employment value and afforded a sure means of settling suitable men and their families permanently on the land. A preliminary survey of the uncultivated land in and near the Special Areas disclosed that it might be possible to secure 200,000 acres of plantable land and to establish 1,000 forest workers' holdings in a period of ten years. The Government accepted the scheme in principle, subject to review at a later date in the light of the progress made and the expenditure involved, and the Commissioners were authorised, in February, 1936, to proceed with a first instalment of the scheme involving the acquisition of 100,000 acres of plantable land and the formation of 500 forest workers' holdings in three years. This arrangement was referred to in the Commissioners' last Annual Report, covering the year ended 30th September, 1937, when it was explained that it was to be regarded as an experimental instalment of the full scheme to be spread over ten years. Reckoning from the time when authority was received to proceed with the scheme the experimental period may be considered to have elapsed in February, 1939, that is to say approximately six months after the period covered by the year under review. It is proposed therefore to deal more fully with the subject in the next Annual Report.

Surveys and Acquisitions of Land.—Up to 30th September, 1938, 602,000 acres had been investigated in, or within a 15-mile radius of, the Special Areas, namely, 349,000 acres in South Wales and 253,000 acres in the Northern Areas. Of the total area, 152,000 acres (South Wales 80,000 acres, Northern Areas 72,000 acres) were found to be subject to rights of Common.

The cumulative progress of surveys of land and acquisitions is shown in the table below :—

Year ending 30th September.	Total Area investigated.	Approved for Acquisition.	Finally acquired.
	<i>Acres.</i>	<i>Plantable Acres.</i>	<i>Plantable Acres.</i>
1936 (7 months)	464,000	21,000	—
1937	568,000	41,900	18,500
1938	602,000	53,600	39,000

To 31st March, 1939, the area approved for acquisition was 70,400 acres (South Wales 29,800 acres, Northern Areas 40,600 acres) and the area actually acquired, 55,000 acres (South Wales 18,500 acres, Northern Areas, 36,500 acres).

Supply of Plants.—Small trees for planting in the forest are usually three or four years old and only exceptionally can two-year plants be used. The seed sowings in the spring of 1936, when steps could first be taken to increase the scale of nursery operations, have consequently done little to provide additional planting stock for the year under review.

The additional sowing programme had in the first instance to be distributed among the existing nurseries, but steps were taken at once to form a large new nursery at Tair Onen, near Cardiff, and to increase the capacity of two others at Kershope Forest and at Widehaugh in the North of England.

The Tair Onen nursery extends to 64 acres, a colony of 17 forest workers' holdings has been established and employment is provided for an average of 60 men and boys with a maximum of 100 in the busy season. At Kershope 22 holdings are in course of construction and an average of 50 men and boys is employed in the forest and nursery. At Widehaugh the employment provided varies from 60 to 90; no suitable land for holdings was available, but there is ample labour in the neighbourhood.

As the result of these increases the Commissioners have large stocks of nursery plants in various stages of development.

Planting.—On the land acquired, planting has proceeded as quickly as negotiations with sitting tenants, preparation of ground and provision of supplies of young trees have permitted. It was found impossible to carry out any additional planting work during the season 1936-37 owing mainly to the shortage of plants of suitable age and size. The total area planted, additional to normal programmes, in the year under report, was 2,450 acres, of which 450 acres were in South Wales and 2,000 acres in the North of England. The programme for 1938-39 was 5,000 acres (South Wales 1,900 acres, Northern Areas 3,100 acres).

The work provided by the preparation of ground and planting over the six winter months is equivalent to approximately one man for ten acres planted. The necessary workmen have been obtained in the immediate neighbourhood of operations except in one case where it was necessary to transport some 25 men daily by bus from Haltwhistle to Warke Forest.

Forest Workers' Holdings.—To 30th September, 1938, the Commissioners had approved plans for the establishment of 235 holdings. In consequence, however, of the remote situation of many of the sites and the continued pre-occupation of building contractors with defence and other work, the difficulty of obtaining tenders for the construction of forest workers' holdings has persisted. Delays in the delivery of building materials to contractors by manufacturers have also been a source of trouble.

Nevertheless, contracts were arranged for the construction of a total of 128 houses, of which 43 were tenanted, 19 were ready for occupation and 22 were nearing completion by 30th September, 1938.

Great care has been taken with the plans for all these new houses in order to provide elevations in harmony with the countryside, and local material and labour have been utilised so far as practicable. No standard plan or specification was adopted, endeavour having been made to provide houses in keeping with the locality both as to design and construction.

Tenants for the new forest workers' holdings presented themselves rather slowly at first, particularly from the Northern Special Areas, but after personal work by officers of the Commission and the Ministry of Labour there is now no lack of suitable applicants, and the arrangements made with the Ministry of Labour for the interview and selection of prospective occupiers have, in the end, worked quite satisfactorily. Selected applicants (with their wives) are, by arrangement with the Ministry of Labour, given the opportunity of visiting the houses free of cost before they decide to enter into agreements for tenancy. Land up to 10 acres is available for each forest worker's holding, but the tenants are at first provided with a house and garden ground only, and are not pressed to take up and cultivate the additional land until they are ready to do so. Removal expenses continue to be borne by the Ministry of Labour and each tenant receives from that Department a free grant of £15 by instalments for the stocking and equipment of the holding.

Scotland.

The possibility of extending the scheme to Scotland was discussed with the Commissioner for the Scottish Special Areas. The prospects of success are not so favourable in Scotland as in South Wales or the North of England and it was felt that meanwhile it would be unwise to make similar proposals for Scotland.

FINANCE.

The balance in the Forestry Fund at the commencement of the forest year was £545,074. Receipts from Parliamentary Votes (£800,000) and Forestry Operations (£231,231) amounted to £1,031,231. Payments amounted to £1,115,583, so that the balance in the Fund at 30th September, 1938, was £460,722. The progress of payments and receipts is indicated in the table below.

Forestry Fund: Payments and Receipts.

Year ending 30th September.	Payments.			Receipts.			Net Payments.		
	Proposed.	Actual.	Excess (+) Deficit (-)	Proposed.	Actual.	Excess (+) Deficit (-)	Proposed.	Actual.	Excess (+) Deficit (-)
First decade :	£	£	£	£	£	£	£	£	£
1920-29 (10½ financial years)	—	4,502,018	—	—	851,434	—	3,892,000	3,650,534	- 241,466
Second decade :									
1930 ...	958,000	808,237	- 149,763	145,000	148,337	+ 3,337	813,000	659,900	- 153,100
1931 ...	1,019,000	842,490	- 176,510	158,000	171,556	+ 13,556	861,000	670,934	- 190,066
1932 ...	798,000	761,220	- 36,780	159,000	151,466	- 7,534	639,000	609,754	- 29,246
1933 ...	602,000	582,259	- 19,741	153,000	146,629	- 6,371	449,000	435,630	- 13,370
1934 ...	600,000	618,852	+ 18,852	150,000	172,953	+ 22,953	450,000	445,899	- 4,101
1935 ...	611,000	620,818	+ 9,818	156,000	178,339	+ 22,339	455,000	442,479	- 12,521
1936 ...	754,000	718,869	- 35,131	174,000	186,140	+ 12,140	580,000	532,729	- 47,271
1937 ...	981,000	911,946	- 69,054	202,000	228,079	+ 26,079	779,000	683,867	- 95,133
1938 ...	1,076,000	1,115,583	+ 39,583	213,000	231,231	+ 18,231	863,000	884,352	+ 21,352
Total ...	—	9,016,078	—	—	—	—	—	—	—

COMMISSIONERS' ESTATES.

The following statement presents a general view of the properties under the charge of the Commissioners at 30th September, 1938, and a summary of the main silvicultural operations which have been undertaken :

	<i>England and Wales.</i>	<i>Scotland.</i>	<i>Total Great Britain.</i>
<i>Number of Forests :</i>			
At beginning of year	118	97	215
At end of year ...	125	107	232
<i>Utilisation of Ground (Acres) :</i>			
Forest Land :			
Acquired Plantations ...	59,000	11,000	70,000
Planted by Forestry Commission ...	207,000	126,000	333,000*
To be planted ...	153,000	126,000	279,000
	419,000	263,000	682,000
Nurseries ...	600	400	1,000
Agricultural ...	22,500	14,700	37,200
Forest Workers' Holdings (including outrun) ...	12,000	3,000	15,000
Unplanted and Miscellaneous ...	118,900	242,900	361,800
	573,000	524,000	1,097,000

* The total area planted, including replacements, was 340,638 acres (see page 13).

	<i>England and Wales.</i>	<i>Scotland.</i>	<i>Total Great Britain.</i>
<i>Silvicultural Operations during Year (Acres) :</i>			
Planted or Sown ...	14,988	9,101	24,089
Naturally Regenerated	82	—	82
Underplanted ...	408	13	421
Thinned	3,817	1,132	4,949
Felled	666	61	727
<i>Holdings and Estate Manage- ment :</i>			
Number of Forest Workers' Holdings established :			
At beginning of year	961	338	1,299
During year ...	56	21	77
At end of year	<u>1,017</u>	<u>359</u>	<u>1,376</u>
Other Tenancies :			
Agricultural Holdings :			
Under £20 per annum...	550	361	911
Over £20 per annum ...	354	203	557
Foresters' Houses ...	112	65	177
Cottages	330	244	574
Residential and Sporting Easements, Permissions, Minerals, etc.	317	232	549
Site Rents and Feus ...	2,040	191	2,231
	—	231	231
	<u>3,703</u>	<u>1,527</u>	<u>5,230</u>

It will be observed that during the year the number of forest units has increased by 17 from 215 to 232. Of these new units 7 are in England and Wales and 10 in Scotland.

Including transferred Crown woodlands the total area of land which has been acquired increased by nearly 92,000 acres from 1,005,500 acres to 1,097,000 acres and the plantable area by 64,000 acres from 618,000 acres to 682,000 acres.

Compared with the previous year there have been increases in all silvicultural operations, the most important being in planting and sowing, 24,089 acres against 20,107 acres, and in the area thinned, 4,949 acres against 4,186 acres.

LAND ACQUISITION.

Acquisitions during the year amounted to 91,929 acres net, of which 64,095 acres were classified as plantable.

Acquisition of Plantable Land.

Year ending 30th September.	By Lease or Feu.	By Purchase.	Total.		
			Actual.	Acland Proposals.	Excess (+) Deficit (-)
First decade :	Acres.	Acres.	Acres.	Acres.	Acres.
1920-29 ...	156,759	153,471	310,230	402,000	- 91,770
Second decade :					
1930 ...	8,409	25,951	34,360	34,300	+ 60
1931 ...	4,851	44,007	48,858	34,300	+ 14,558
1932 ...	4,970	41,467	46,437	34,300	+ 12,137
1933 ...	2,885	12,450	15,335	34,300	- 18,965
1934 ...	11,581	17,305	28,886	34,300	- 5,414
1935 ...	268	13,772	14,040	34,300	- 20,260
1936 ...	603	17,641	18,244	34,300	- 16,056
1937 ...	1,805	40,490	42,295	34,300	+ 7,995
1938 ...	3,307	60,788	64,095	34,300	+ 29,795
Total ...	195,438	427,342	622,780	710,700	- 87,920

PLANTING PROGRAMME.

State Forests.

The area planted during the year was 24,089 acres.

Area Planted.

Year ending 30th September.	Proposed to be Planted.	Actually Planted.			Excess (+) Deficit (-) on Decade or Annual Programme.
		New Planting.	Replace- ments.	Total.	
First decade :	Acres.	Acres.	Acres.	Acres.	Acres.
1920-29 :					
Conifers	150,000	126,444	4,316	130,760	- 19,240
Hardwoods	unspecified	6,365	1,146	7,511	
				138,271	
Second decade :					
1930 ...	25,000	21,404	3,698	25,102	+ 102
1931 ...	25,000	24,234	1,396	25,630	+ 630
1932 ...	20,000*	21,959	704	22,663	+ 2,663
1933 ...	20,000*	20,394	657	21,051	+ 1,051
1934 ...	20,000*	20,355	1,302	21,657	+ 1,657
1935 ...	20,000*	20,773	719	21,492	+ 1,492
1936 ...	20,000*	19,495	1,081	20,576	+ 576
1937 ...	} †	19,324	783	20,107	+ 107
1938 ...		23,404	685	24,089	+ 4,089
Total ...	—	324,151	16,487	340,638	—

* Minimum area.

† From 1937 onwards the proposals embraced the Special Areas programme. The general object in view was to increase the rate of planting as quickly as possible to 30,000 acres per annum.

The total area planted by the Commission to 30th September, 1938, was 340,638 acres, of which 315,666 acres consisted of conifers and 24,972 acres of hardwoods. New planting accounted for 324,151 acres and replacements, which included 5,764 acres replanted after damage by fire, for 16,487 acres. Details are given below.

	<i>Conifers.</i> <i>Acres.</i>	<i>Hardwoods.</i> <i>Acres</i>	<i>Total.</i> <i>Acres.</i>
New planting	302,851	21,300	324,151
Replacements	12,815	3,672	16,487
Total	<u>315,666</u>	<u>24,972</u>	<u>340,638</u>

Assistance to Local Authorities and Private Owners.

The Commissioners have continued to assist planting by local authorities and private owners by means of grants and a proceeds-sharing scheme. The total area planted amounts to 120,001 acres, of which 4,746 acres were planted during the year. Particulars of the grants are given on page 38.

	<i>Acres.</i>
First decade :	
1920-29 	72,856
Second decade :	
1930 	6,472
1931 	5,792
1932 	5,035
1933 	4,395
1934 	5,477
1935 	5,485
1936 	5,353
1937 	4,390
1938 	4,746
Total	<u>120,001</u>

Utilisation of Home Grown Timber.

The high prices ruling in the previous year for home-produced peeled pit-props were not fully maintained. The general fall in prices was felt more severely in Scotland than in England and Wales where the margin of profit to the grower has remained sufficiently remunerative to permit of continuous marketing. The prices obtainable for timber generally have also declined to some extent. The Commissioners have again devoted close attention to the many aspects of home-grown timber utilisation, and improvement in preparation and market-

ing of produce. Mention should be made again of the work done to establish an assured trade in peeled props wherever suitable thinnings are available from State forests. Care has been taken in preparing and seasoning props and in adhering to specifications; in consequence there have been no complaints as to quality. In connection with the sale of home-grown mining timber attention is again drawn to the undesirability of clear felling immature stands. On the other hand the marketing of pit-props from improvement thinnings has everything to commend it.

An increased trade is being found for the produce from thinnings and the Commissioners are marketing larger quantities of poles and stakes. An enquiry into the utilisation of small material has been initiated by the Inter-Departmental Home Grown Timber Committee.

The National Home Grown Timber Council, which issues its own report, will have completed three years' work during the course of 1939. The original grant by the Commissioners was for that period and discussions as to the future are now proceeding.

The Commissioners were glad to welcome members of the Federated Home Grown Timber Merchants' Associations in the New Forest during October, 1938. This is the second year in succession that such a meeting has been arranged, the previous visit having been to the Forest of Dean. The opportunity for discussion of mutually interesting questions of silviculture and utilisation was greatly appreciated and it is proposed to hold a similar meeting in North Wales in 1939.

Amenity.

The Joint Informal Committee of the Commissioners and the Council for the Preservation of Rural England held two meetings during the year, when they had under consideration problems relating to the Lake District, Breckland, Dartmoor and Saver-nake Forest, which the Commissioners have recently acquired, and the general question of forest policy and amenity particularly from the point of view of planning and road development.

The Committee proposed in their report of 1936 on afforestation in the Lake District that 440 acres of plantable land in Upper Eskdale should be omitted from the Commissioners' planting scheme provided that compensation was paid to the Commissioners at £2 per acre. Subsequently the Commissioners agreed that the remainder (300 acres) of their plantable land in Eskdale might also be reserved from afforestation, and in July, 1938, the National Trust and the Council for the Preservation of Rural England issued an appeal for the total compensation money of £1,480. In addition to the 740 acres thus to be pre-

served from planting the public will have access to the unplantable land on the Estate extending to some 5,000 acres. It is understood that contributions are still required to close the appeal.

The Joint Committee's agreed Plan for dealing with questions affecting Breckland was found of great assistance in discussions arising out of the Commissioners' negotiations for a property in East Anglia.

In July, 1938, the Commissioners received representatives of the East Sussex County Council, the Hailsham Rural District Council, the Society of Sussex Downsmen and the Council for the Preservation of Rural England, to discuss the question of afforestation on the East Sussex Downs, with particular reference to the Friston area. As a result of subsequent discussions on the ground, agreement was reached on outstanding matters.

New Forest.

The New Forest has continued to receive the close attention of the Commissioners. In addition to a statement of their general policy reference was also made in the last Annual Report to the work of the New Forest Advisory Committee and to a conference which was held at Lyndhurst on the subjects of the management of the Forest in general and the development of roads in particular. During the year the scope of these consultations was enlarged with a view to securing co-ordination in the work of those Planning Authorities whose activities might be expected to affect, in some way or other, the Forest as it exists today. The steps which have been taken do not fall within the year under report but it may be of interest to state the present position.

In November, 1938, the Commissioners, with the concurrence of the Ministry of Health, convened an informal conference of the various bodies* interested in the town planning of the New Forest, the objective placed before the conference being the preservation of the unique character of the Forest. After discussion the Conference remitted the problem to a Committee constituted of an officer of the Ministry of Health, the Deputy Surveyor of the New Forest and the Planning Officers of the various Authorities. The reference to the Committee was to consider the appropriate planning of the New Forest and its environs.

* In addition to the Ministry of Health and the Forestry Commission the following were represented: Hampshire County Council, New Forest Joint Planning Committee, Southern Hampshire Joint Planning Committee, County Borough of Bournemouth, Borough of Christchurch, Borough of Lynton, Verderers of the New Forest, and the New Forest Advisory Committee.

The Report* of the Committee was presented to and, with one dissident, approved in principle by the Conference at a second meeting held in March, 1939. The Conference submitted the Report to the Ministers of Health and Transport, the Hampshire County Council and the Planning Authorities concerned for consideration with a view to the planning schemes being adapted to cover the proposals of the Report; and, in order to secure continuance of co-ordination in the preservation of the New Forest, recommended the establishment of a Joint Body to administer zoning in the New Forest and its environs.

The Commissioners in leaving this subject may perhaps be permitted to express the hope that, in the face of so great unanimity to preserve the unique character of the Forest, means may in fact be found to do so.

Private Forestry.

In the Commissioners' previous Report a brief account was given of the Conference on Private Forestry which they convened in February, 1938. The Conference made several recommendations which the Commissioners adopted and have been endeavouring to carry out.

It was suggested that the Chairman and Commissioners should address a series of meetings throughout the country with the double object of stimulating the interest of owners in the better management of their woodlands and ascertaining, by direct contact, the difficulties in securing good management.

The organisation of the meetings was undertaken by the Royal English and the Royal Scottish Forestry Societies in their respective countries with the exception of the meeting at Gloucester, which was organised by the Central Landowners' Association. The hearty thanks of the Commissioners are due in the first place to the two Presidents, the Hon. Nigel Orde-Powlett and Captain George Campbell, Younger of Succoth, for supervising arrangements and for personally attending and participating in meetings, and in the second place to the Chairmen of meetings for presiding and using their personal influence for securing representative attendances.

In all fifteen meetings were held, of which eight were in Scotland, six in England and one in South Wales. England and Wales were not so effectively covered as Scotland and two further meetings might perhaps have been held: one at Shrewsbury for North Wales and one at Carlisle for the North of England. The whole series as arranged by the Societies was completed in almost exactly one year from the time of the initial

* *Protection of the New Forest.* H.M. Stationery Office, 1939. Price 9d.

Conference of February, 1938. Details of the meetings are stated below.

<i>Meeting Place.</i>	<i>Date.</i>	<i>Chairman.</i>
	1938.	
King's Lynn	26th March ...	Major the Hon. R. Coke.
Gloucester	30th April ...	Colonel H. C. Elwes.
Taunton	5th May ...	Rev. J. A. Kitson.
Ipswich	21st May ...	Major the Hon. R. Coke.
Aberdeen	23rd July ...	Major General Sir James Burnett, Bart.
Inverness	25th July ...	The Rt. Hon. the Earl of Moray.
Oban	26th July ...	Captain G. I. Campbell.
Dunfermline	11th October ...	The Rt. Hon. the Earl of Crawford and Balcarres.
Perth	12th October ...	The Rt. Hon. Lord Kinnaird.
Cardiff	14th November	The Rt. Hon. Lord Merthyr.
Newtown St. Boswells	8th December	} His Grace the Duke of Buccleuch.
Dumfries	9th December	
Arundel	12th December		His Grace the Duke of Norfolk.
	1939.	
Glasgow	6th January ...	Sir John Stirling-Maxwell, Bart.
York ...	9th February	The Rt. Hon. Sir Charles Trevelyan, Bart.

It is impossible to estimate how far the first object of the meetings has been attained; as regards the second the Commissioners have received a number of suggestions which will have attention in attempting to formulate a forest policy.

Two outstanding points must be mentioned. Opinion was unanimous that the private woodlands of the country are for the most part in an unsatisfactory state and tending to deteriorate rather than improve. The second point was the unanimity shown in condemning the rabbit as the greatest single deterrent to the practice of good silviculture. The owner who attempts to exterminate his own rabbits is almost helpless against invasion from neighbouring estates. This state of affairs calls for concerted and compulsory destruction.

In accordance with the recommendation that an advisory service should be established on an experimental basis the Commissioners have appointed a Committee* under the Chairmanship of one of their members, Sir George Courthope, to deal with the counties of Kent, Surrey and Sussex. In order that the

* The Committee is constituted as follows:—

Col. The Rt. Hon. Sir George Courthope, Bart. (Chairman).

Mr. Walter Burrell Central Landowners' Association and
Home Grown Timber Marketing
Association.

Mr. H. S. Eeles Land Agents' Society.

Mr. O. J. Sangar Assistant Forestry Commissioner.

Mr. Cyril F. Stone Chartered Surveyors' Institution.

Mr. Leslie S. Wood Royal English Forestry Society.

Mr. E. Wynne Jones Officer in charge of Forestry Commis-
sion's Census of Woodlands.

Secretary: Mr. B. Bird.

Committee may have full information on the state of the woodlands, the census of woodlands, to which reference is made in a subsequent section, is now being proceeded with in Sussex.

The Conference also recommended that an authentic account should be published of the ways in which other countries have dealt with the problem of private woodlands. Such progress as was being made in the collection of data has been retarded by the international situation. The attention of readers is drawn, however, to the excellent account which has been published by Professor R. S. Troup.*

The short courses for foresters on private estates, which the Conference recommended should be extended, have been continued at five centres.

The Commissioners have also appointed a special officer to assist in enlightening woodland owners and the general public regarding the importance of forestry and timber production.

National Forest Parks.

ARGYLL.

The numerous organisations interested in camping and out-of-door recreation have again taken full advantage of the public camping grounds and the number of visitors has once more increased. Progress is being made with further extensions of the camping grounds and more sign posts and indicators have been erected. Many more persons have also been accommodated at the Scottish Youth Hostels, and two more hostels, one at Lochgoilhead and the other at Loch Eck, have been opened within the National Forest Park area.

The popularity and progress of the Argyll National Forest Park are shown by the numbers of visitors making use of the facilities offered in each of the last three years as follows:—

		1936.	1937.	1938.
Forestry Commission Camps	...	6,550	10,280	13,744
Scottish Youth Hostels	... ..	6,760	10,169	15,781
Totals	... ..	13,310	20,449	29,525

Thus in 1938 there was an increase in "night accommodation" provided of 9,076 over the previous year.

The first National Forest Park Guide† was published during the year and has met with a ready demand. The Commissioners wish to express their gratitude to Professor Walton and others who contributed articles to the Guide.

* *Forestry and State Control*, by R. S. Troup (Clarendon Press, Oxford, 1938).

† *Argyll National Forest Park Guide*. H.M. Forestry Commission, 1938. Price 6d.

SNOWDONIA.

An Executive Committee has been appointed to carry out the general recommendations of the Committee of Investigation. Difficulty has been experienced in selection of sites for camps owing to the mountainous nature of the district and after careful inspection camping grounds have been chosen at Beddgelert and at The Glyn, while camps for Boy Scouts are in prospect at The Nant, above Gwydyr Uchaf. Plans for the necessary accommodation for campers are proceeding.

FOREST OF DEAN.

The Committee, under the Chairmanship of Lt.-Col. J. C. Wynne Finch, has reported upon the suitability of the Forest of Dean as a National Forest Park.* The Commissioners have accepted the general recommendations of the Committee.

Census of Woodlands.

The last census of woodlands was made for the year 1924 and would normally have been repeated for 1934. For financial and other reasons the Commissioners did not feel justified at that time in incurring the necessary expenditure. In the interval a number of reasons has indicated the desirability of having available an accurate and fairly detailed knowledge of the woodlands. The reserves of standing timber have an important bearing on National Defence; the National Home Grown Timber Council have represented to the Commissioners the need for accurate data in connection with the improvement of timber utilisation under normal conditions, and, finally, the condition of the woodlands has to be taken closely into account in formulating proposals relating to Forest Policy.

A Census and Plans Branch was accordingly formed in January, 1938, with the dual function of conducting a census of the woodlands and making plans for supplies of home-grown timber in emergency.

Census of Woodlands.—The system which has been adopted was evolved after examination of the methods of previous surveys, including a census made by the National Home Grown Timber Council of the woodlands of Hertfordshire, and a new experimental survey conducted by the Commission. Mr. Yates, Statistician at Rothamsted, was good enough to examine from the statistical point of view the adequacy of the methods finally adopted.

The basis of the census is the survey and mapping on 6-in. Ordnance Survey Sheets of every area of woodland of 5 acres or

* *Report of the National Forest Park Committee (Forest of Dean), 1938.* H.M. Stationery Office. Price 6d.

more in extent. The record sheets describe for each "stand" or unit of woodland the area, type, age, condition, species, volume by species and girth classes; the volume of pitwood is recorded separately. This information is transferred to punched cards to facilitate the analysis of the data.

The procedure is such that the final figures present a ready comparison by counties with the 1924 census.

In addition sample surveys are being made of the timber standing in hedgerows.

It has not been found possible, without unduly delaying the work, to record ownerships or to establish personal contact with all owners and agents. It is the practice, however, to issue a circular letter in each locality just before the survey is begun and the officer in charge has instructions to meet owners and agents whenever reasonably possible.

The Commissioners desire to acknowledge the help which has already been received from the owners of wooded estates.

Two District Officers and one Surveyor commenced work in January, 1938, from Mansfield, Nottingham, which had been selected as a training centre. Procedure was tested and revised as necessary and the full staff of twelve Surveyors gradually recruited and trained; by the end of April the party was complete and 65,000 acres of woodland had been surveyed. It was decided to concentrate upon the heavily-timbered conifer areas of Scotland during the summer, and in May the party moved to Elgin, leaving a few men to finish up the English work. By the middle of July, 106,000 acres had been completed in England, comprising the whole of Nottingham and Lincoln and adjacent parts of other counties, and also nearly 100,000 acres in Moray, Nairn and Inverness. Since that date progress has been more rapid and by the 30th September, 1938, approximately 360,000 acres had been surveyed, of which 106,000 acres were in England and 254,000 acres in Scotland.

It is estimated that with the outdoor staff as at present constituted the rate of progress will be approximately 700,000 acres per annum.

Plans.—In collaboration with the Timber Trade in England and Wales and in Scotland information has been collected as to capacity to produce timber and as to the steps which should be taken in emergency to increase output.

Imperial Forestry Institute, Oxford.

The Imperial Forestry Institute was established in 1924 in connection with the University of Oxford to undertake post-graduate and specialised training, research and the supply of information. It has been financed mainly by grants from the Colonial Office and the Forestry Commission, and administered by a Board of Governors on which the Commission, the

University and the other British Schools of Forestry were represented. The Institute has latterly been under the direct charge of a Director and not the University Professor of Forestry. The annual contribution of the Forestry Commission has been £2,000 per annum. In the past funds have also been provided by the Commission for special research at Oxford, the average amount expended being about £1,200 per annum.

The University authorities were of opinion that the administrative arrangements were not wholly satisfactory and in view of the fact that the grants guaranteed by the Commission would run out in September, 1939, they set up a Committee to investigate the working of the Institute and the University School of Forestry. The Commissioners presented to this Committee their views on the educational requirements of British forestry. The Colonial Office proposed to widen the basis of recruitment for the Colonial Forest Service by awarding scholarships in forestry to selected candidates who had graduated with honours in other subjects. Under this scheme, beginning in 1940, the scholars will receive two years' training at the Institute divided by an "apprentice" tour of practical experience in a Colonial Forest Department; while selected graduates in forestry will spend one year at the Institute after a similar practical tour. The Commissioners preferred to continue their existing method of recruiting forest officers from candidates who had taken a degree course at a recognised forestry school.

The University in due course decided to amalgamate the School of Forestry with the Institute, the new organisation to be under the Professor of Forestry; to make provision for the Colonial Office scheme, and to modify the undergraduate course so that in future students working for a degree in forestry are required to take honours either in an approved Final School at Oxford or elsewhere, or in Science Moderations at Oxford, followed by two years' forestry study. The "refresher" courses for members of the Forest Services will be maintained.

Eventually the Commissioners agreed to provide a minimum of £1,750 per annum for five years from October, 1939, to the reconstituted Forestry Department, and to continue the grants for research. The Commissioners have also agreed to assist in the election of the University Professor, but they have not asked for representation on the committee of management.

An interesting development at Oxford is the establishment of the Imperial Forestry Bureau. This has been set up under the Imperial Agricultural Bureaux organisation and is independent of the University, connection with which, however, is secured by having the head of the Institute in general control as Director of the Bureau. A Deputy-Director will be in executive charge, and the function of the Bureau will be to collect and distribute forestry information to scientific and technical Departments.

Highlands and Islands of Scotland.

The Report of the Scottish Economic Committee on the Highlands and Islands of Scotland and their Economic Conditions with Recommendations for Improvement, 1938, included a lengthy reference to afforestation with recommendations which embraced an expansion of the Forestry Commissioners' operations, forestry as an adjunct to crofting and a survey of afforestationable lands contiguous to crofting townships. At the invitation of the Scottish Office the Commissioners submitted a memorandum in December, 1938, indicating that plans could be formulated for the acceleration of land acquisition and planting operations in the Highlands, also for the production of plants and the construction of forest workers' holdings. A special survey of afforestationable lands in the Highlands was considered unnecessary because the suitable areas are already known to the Commissioners.

There are very large areas of land in the Highlands of types which, in consequence of recent improvements in the technique of preparation and planting, can now be successfully afforested but which could not have been so dealt with a few years ago. The Commissioners are able, if funds can be made available, to establish forests in Scotland and to create forest workers' holdings, for the permanent settlement of forest workers, on a considerably greater scale than they are now doing.

Ecological Reserves.

At the British Association Meeting at Cambridge in August, 1938, the Chairman of the Commissioners put forward the suggestion that typical areas in some of the Commission's forests should be left unplanted and reserved for ecological studies. In this way the natural successions of vegetation could be kept under observation over long periods of time. Arrangements would have to be made for recording the initial conditions on the reserved areas and for their assessment from time to time, and also for protective measures against rabbits and other grazing animals, and, so far as possible, against fire. The Commissioners and the Council of the British Ecological Society have accepted the proposal and a Committee* has been set up to formulate a definite scheme and to suggest areas for reservation.

* The Committee is constituted as follows :—

Sir William Wright Smith, Chairman.
 Professor E. J. Salisbury, Vice-Chairman.
 Dr. H. Godwin, British Ecological Society.
 Dr. A. S. Watt, Botany School, Cambridge.
 Mr. Charles S. Elton, Bureau of Animal Population, Oxford.
 Mr. W. H. Guillebaud, Forestry Commission.
 Mr. J. A. B. Macdonald, Forestry Commission, Secretary.

Weather.

The spring of 1938 was characterised by a dry period of unusual length, extending in general from the end of January to the middle of May. Lack of moisture was the cause of noticeable and widespread reduction in the normal height growth of many young conifer plantations and resulted also in seriously delayed germination in the nursery seedbeds and a check to the development of young transplants. The extremely dry conditions rendered the fire hazard particularly acute. After the end of January the plantations became dangerously inflammable, a condition which persisted all the longer because the lack of moisture also retarded the spring growth of green weeds and grasses. The period was one of great anxiety and it was not until the rain came in early summer that the risk abated.

The Restoration of Land affected by Iron Ore Working.

At the invitation of the Ministry of Health the Commissioners submitted to the Committee on the Restoration of Land affected by Iron Ore Working a memorandum on the problems of afforesting iron ore workings, and they were subsequently represented at a meeting of the Committee.

There is already sufficient evidence available from plantations made during the last 20-30 years by private landowners to show that various species of trees grow well on abandoned iron workings. By suitable plantations therefore these unsightly areas can be completely covered up and made productive.

Unemployment Training Camps.

Co-operation with the Ministry of Labour has been continued by the Commissioners in the provision of sites for instructional centres and outdoor work for the men. The work includes fire protection, clearing and road-making. During the year under review the Glenbranter centre, which had been closed temporarily, was reopened; no new centres were established. At the end of the year there were 21 permanent camps (including one non-residential) and 10 summer camps, with a total accommodation for 5,825 men. The camps are situated in or near the following forests: (England and Wales) Allerston, Ampleforth, Bourne, Brechfa, Coed-y-Brenin, Dovey, Gwydyr, Hamsterley, Haldon, Kershope, Kielder, The King's Forest, Langdale, Redesdale, Rendlesham, Rheola and Thetford; (Scotland) Glenbranter, Glenfinart, Glentress and Knapdale.

OPERATIONS—FOREST YEAR 1937—1938.

The Forestry Fund.

The position of the Forestry Fund at 30th September, 1938, and at the same date in previous years is shown in Table I.

Table I.—Forestry Fund Account.

Year ending 30th September.	Balance from preceding Year.	Receipts.			Payments (Table II, Heads A to L).	Balance in Forestry Fund, 30th September.
		Parliamentary Votes.	From Forestry Operations, etc. (Table II Head Z).	Total.		
	(1)	(2)	(3)	(4)	(5)	(6)
First decade :	£	£	£	£	£	£
1920—29 ...	—	4,000,000	851,484	4,851,484	4,502,018	—
Second decade :						
1930 ...	349,466	937,800	148,337	1,086,137	808,237	627,366
1931 ...	627,366	490,000	171,556	661,556	842,490	446,432
1932 ...	446,432	399,000	151,466	550,466	761,220	235,678
1933 ...	235,678	450,000	146,629	596,629	582,259	250,048
1934 ...	250,048	450,000	172,953	622,953	618,852	254,149
1935 ...	254,149	450,000	178,339	628,339	620,818	261,670
1936 ...	261,670	700,000	186,140	886,140	718,869	428,941
1937 ...	428,941	800,000	228,079	1,028,079	911,946	545,074
1938 ...	545,074	800,000	231,231	1,031,231	1,115,583	460,722
Total ...	—	9,476,800	2,466,214	11,943,014	11,482,292	—

Balances remaining in the Fund at 30th September include provision for the succeeding six months of the financial year.

An analysis of payments and receipts by Heads of Account is given in Table II. Compared with the previous year, total payments rose from £911,946 to £1,115,583, an increase of £203,637, mainly under the head of forestry operations. Receipts were greater by £3,152, and net payments were therefore £200,485 more than in 1937. It may be noted that Heads of Account differ in some respects from those under which estimates are presented to Parliament.

Table II is limited to sums actually expended or received, recorded by the heads of account under which they occurred. In subsequent tables, which are based on commercial practice, outstanding receipts and payments are brought to account, salaries and overhead charges (Heads A to D) are allocated to appropriate objects of expenditure, and adjustments are made between various heads of account in respect of produce used for

Table II.—Payments and Receipts by Heads of Account.

Year ending 30th September.	PAYMENTS.													RECEIPTS.		NET PAYMENTS.
	A. Salaries, Wages and Allowances. (1)	B. Head-quarters Charges. (2)	C. Assistant Commissioners' Charges. (3)	D. Divisional Officers' Charges. (4)	E. Forestry Operations. (5)	F. Advances for Afforestation Purposes. (6)	G. Education. (7)	H. Research and Experiment. (8)	J. Agency and Advisory Services. (9)	K. Special Services. (10)	L. Forest Workers' Holdings. (11)	Total. (12)	Z. (13)	(14)		
First decade :	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	
1920-29 ...	494,157	22,576	30,586	744,434	3,118,837	207,824	76,004	36,927	91,776	23,342	325,455	4,502,018	831,484	3,650,534		
Second decade :																
1930 ...	63,202	2,571	7,658	9,418	598,119	14,102	9,335	6,901	—	493	96,418	808,237	148,337	659,900		
1931 ...	65,347	5,267	4,704	9,787	629,461	14,067	9,628	7,577	—	337	96,315	812,490	171,556	670,934		
1932 ...	63,313	5,851	3,414	10,007	603,735	13,649	6,925	6,653	—	674	46,999	761,220	151,466	609,754		
1933 ...	62,119	4,219	3,416	9,401	465,637	12,103	6,002	7,291	—	568	11,503	582,259	146,629	435,630		
1934 ...	63,069	4,119	2,960	9,449	498,053	14,121	5,292	6,286	—	860	14,643	618,852	172,953	445,899		
1935 ...	67,385	4,343	3,090	10,340	491,506	13,968	5,999	8,479	—	1,066	14,642	620,818	178,339	442,479		
1936 ...	72,997	4,178	4,262	10,944	573,593	13,116	6,183	9,057	—	3,284	21,255	718,869	186,140	532,729		
1937 ...	79,583	4,811	5,893	11,547	719,951	9,884	7,111	10,453	—	2,301	66,612	911,946	228,079	683,867		
1938 ...	86,538	7,083	5,818	12,980	919,639	10,995	9,351	11,366	—	2,314	49,579	1,115,583	231,231	884,352		
Total ...	1,117,710	65,118	71,801	168,307	8,618,531	323,739	141,860	110,790	91,776	35,239	737,421	11,482,292	2,466,214	9,016,078		

Table IIa.—Expenditure and Income.

Year ending 30th September.	EXPENDITURE (Including Allocation of Column 1).										INCOME.				NET EXPENDITURE. (14)
	A to D, Superior and Overhead Charges. (1)	E. Forestry Operations. (2)	F. Advances for Afforestation Purposes. (3)	G. Education. (4)	H. Research and Experiment. (5)	J. Agency and Advisory Services. (6)	K. Special Services. (7)	L. Forest Workers' Holdings. (8)	TOTAL. (9)	Z1. Forestry Operations. (10)	Z5. Forest Workers' Holdings. (11)	Miscellaneous. (12)	TOTAL. (13)		
First decade :	£	£	£	£	£	£	£	£	£	£	£	£	£	£	
1920-29 ...	582,178	3,512,577	241,694	101,313	79,650	99,233	61,299	389,883	4,485,649	882,108	27,515	6,936	916,559	3,569,090	
Second decade :															
1930 ...	83,114	675,631	56,944	10,208	12,338	1,177	2,097	108,575	826,970	147,994	13,206	486	160,606	666,364	
1931 ...	85,803	701,434	10,373	1,411	12,598	1,107	1,891	109,020	854,094	105,068	13,583	386	119,037	735,057	
1932 ...	80,972	661,180	10,341	8,864	12,380	1,133	2,357	56,357	756,560	144,216	16,811	77	161,104	597,476	
1933 ...	79,182	527,218	14,353	8,228	12,162	944	2,099	19,437	584,459	137,941	17,228	170	155,339	459,120	
1934 ...	79,000	570,853	10,450	8,058	11,301	997	2,453	21,417	637,529	163,132	17,372	518	181,022	456,507	
1935 ...	85,203	560,454	10,639	8,013	13,739	1,201	5,012	21,685	632,743	169,202	17,551	270	187,023	445,720	
1936 ...	92,579	655,041	15,872	9,074	14,132	1,180	5,971	30,073	731,343	183,030	16,064	507	201,601	529,742	
1937 ...	102,197	833,339	12,075	10,295	16,289	1,318	4,770	70,176	948,262	225,966	18,052	674	245,292	702,970	
1938 ...	113,546	1,017,351	13,872	12,668	17,583	1,282	10,496	59,452	1,132,644	227,723	18,465	1,047	247,235	885,499	
Total ...	1,384,734	9,727,078	380,813	188,090	202,138	109,634	98,445	886,075	11,592,273	2,446,380	177,447	10,901	2,634,818	8,957,455	
Percentage ...		83.9	3.3	1.6	1.7	1.0	0.9	7.6	100	92.8	6.8	0.4	100		

Note.—The above and subsequent tables do not include the amount of the valuation (£1,738,075) placed on the Crown properties transferred to the Commission under the Forestry (Transfer of Woods) Orders in Council dated 21st March, 1924 and 1st June, 1926.

forest purposes and transfers of land and buildings between the forests and forest workers' holdings.

Expenditure and income adjusted on the basis stated above are shown in Table IIa.

Subheads A to D—General Organisation. Expenditure, £113,546.

Compared with 1937, expenditure rose by £11,349, due to normal increments, and salaries, travelling and office expenses of additional staff required for work in connection with the Special Areas and Census of Woodlands. The number of Divisional Officers remained at 16 and there was one Estate Officer. During the year the number of District Officers was increased from 54 to 56, and 12 Temporary Surveyors were added for census of woodlands work.

Subhead E—Forestry Operations. Expenditure, £1,017,351 ; Income, £227,723.

Details of expenditure and income are given in Table E. Gross expenditure was £184,012 more than in 1937. The chief increases were £86,864 on acquisition of land, £55,552 on cultural operations, £11,226 on preparation and sale of produce and £16,533 on stores and miscellaneous. Income from forestry operations rose by £1,757.

Overhead Charges, £38,056; Superior Supervision, £43,959, and Local Supervision, £60,683.—Overhead charges are in respect of salaries, allowances and other expenses in the offices of the Commissioners and Assistant Commissioners. Superior supervision represents similar expenditure in respect of the Deputy Surveyors, Divisional Officers and District Officers; and local supervision includes the salaries, housing allowances and miscellaneous expenses of Foresters and Foremen. During the year the number of Foresters and Foremen employed in forestry operations was increased by 22. The numbers at 30th September, 1938, were:—Foresters 212 (Head, 7; Grade I, 43; Grade II, 162), Foremen 132.

Acquisition of Land, Buildings and Standing Timber.—Expenditure amounted to £296,421, of which £270,147 was in respect of purchases of land including standing timber and buildings, and £26,274 in respect of land held on long lease or feu. (This expenditure is not directly applicable to the areas acquired during the year, particulars of which follow.)

The total area of land acquired during the forest year 1937-38 amounted to 97,126 acres, of which 64,107 acres were classified as plantable. On the other hand disposals and adjustments amounted to 5,197 acres (12 acres plantable).

The average rent or feu duty for land acquired for forestry operations during the year by lease or feu was approximately 2s. 4d. per acre and the average price for such land purchased, approximately £2 1s. 4d. per acre. If the whole outlay in respect of land, buildings, timber, etc., were charged against plantable land the figures would be 2s. 6d. and £3 19s. 1d. respectively. Land and buildings for forest workers' holdings are excluded.

The net total area in Great Britain in respect of which the legal formalities of acquisition by the Department had been completed by 30th September, 1938, was 974,420 acres, the corresponding figures in the previous two Annual Reports being 882,712 and 831,760 acres. In addition to these completed acquisitions, entry had been secured to other property. Details are given in the table below, which also shows the area of "plantable" land and "other" land, *i.e.* land which is either too poor to plant or is required for other purposes.

*Land acquired by Lease, Feu and Purchase from
29th November, 1919, to 30th September, 1938.*

	By Lease and Feu.			By Purchase.			Total Acquired.
	Plant- able (includ- ing planted).	Other Land.	Total.	Plant- able (includ- ing planted).	Other Land.	Total.	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
<i>England and Wales :—</i>							
Finally com- pleted ...	113,097	25,982	139,079	248,790	75,842	324,632	463,711
Entry secured	2,632	107	2,739	222	—	222	2,961
Total ...	115,729	26,089	141,818	249,012	75,842	324,854	466,672
<i>Scotland :—</i>							
Finally com- pleted ...	79,710	74,532	154,242	178,330	178,137	356,467	510,709
Entry secured	—	—	—	—	—	—	—
Total ...	79,710	74,532	154,242	178,330	178,137	356,467	510,709
<i>Great Britain...</i>	195,439	100,621	296,060	427,342	253,979	681,321	977,381

Of the net total area acquired by lease, feu and purchase in Great Britain to 30th September, 1938, 622,781 acres were classified at the time of acquisition as plantable and of this area

Table E.—Forestry Operations.

Year ending 30th September.	EXPENDITURE (Table Ia, Column 2).										INCOME (Table Ia, Column 10).					NET EXPENDITURE.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
	Over-head Charges.	Superior Supervision.	Local Supervision.	Acquisition of Land, etc.	Cultural Operations.	Preparation and Sale of Produce.	Roads and Buildings.	Stores and Miscellaneous.	Total.	Sales of Land and Buildings.	Rents and Royalties.	Forest Produce.	Other.	Total.		
First decade:																
1920-29 ...	192,997	201,122	174,130	787,599	1,510,801	118,853	115,488	411,677	3,512,577	76,784	271,091	406,594	122,639	882,108	2,630,469	
Second decade:																
1930 ...	29,413	29,957	36,674	186,640	280,356	22,871	26,566	63,154	675,631	2,642	65,184	63,949	16,219	147,994	527,637	
1931 ...	31,974	30,929	39,413	193,444	285,558	20,972	27,483	71,661	701,434	15,568	71,930	56,768	20,802	165,068	536,366	
1932 ...	29,352	30,004	40,633	200,552	252,556	20,315	24,376	63,362	661,180	7,869	70,249	49,477	16,621	144,216	516,964	
1933 ...	29,609	29,752	43,467	76,394	254,363	26,766	18,301	48,566	527,218	4,463	75,127	47,321	11,030	137,941	389,277	
1934 ...	27,898	31,856	46,934	95,215	265,071	30,966	18,629	61,184	576,853	12,258	78,120	53,893	16,861	163,132	413,721	
1935 ...	27,985	35,127	48,364	70,042	281,488	34,489	18,129	50,830	566,454	6,394	81,622	63,112	18,074	169,202	397,252	
1936 ...	31,906	37,308	52,257	115,412	300,807	36,123	18,021	63,207	655,641	5,708	83,027	73,111	21,184	183,030	472,011	
1937 ...	36,771	39,814	56,536	209,557	346,084	49,855	28,133	66,589	833,339	2,407	84,753	89,814	48,992	225,966	607,373	
1938 ...	38,956	43,959	60,683	296,421	401,656	61,081	32,393	83,122	1,017,351	15,669	92,111	101,954	17,989	227,723	789,628	
Total	473,061	500,828	598,191	2,231,186	4,178,720	422,321	327,519	983,452	9,727,078	151,762	976,214	1,007,993	310,411	2,446,380	7,280,098	
Percentage ...	4.9	5.3	6.2	22.9	42.9	4.3	3.4	10.1	100	6.2	39.9	41.2	12.7	100		

364,741 acres (59 per cent.) were in England and Wales and 258,040 acres (41 per cent.) in Scotland.

In addition to the above-mentioned areas, Crown woodlands extending to about 120,000 acres (of which some 60,000 acres are plantable) have been transferred to the Forestry Commissioners.

The total area of land in the Commissioners' control is thus approximately 1,100,000 acres. In round figures the utilisation as at 30th September, 1938, was as shown in the table on page 10.

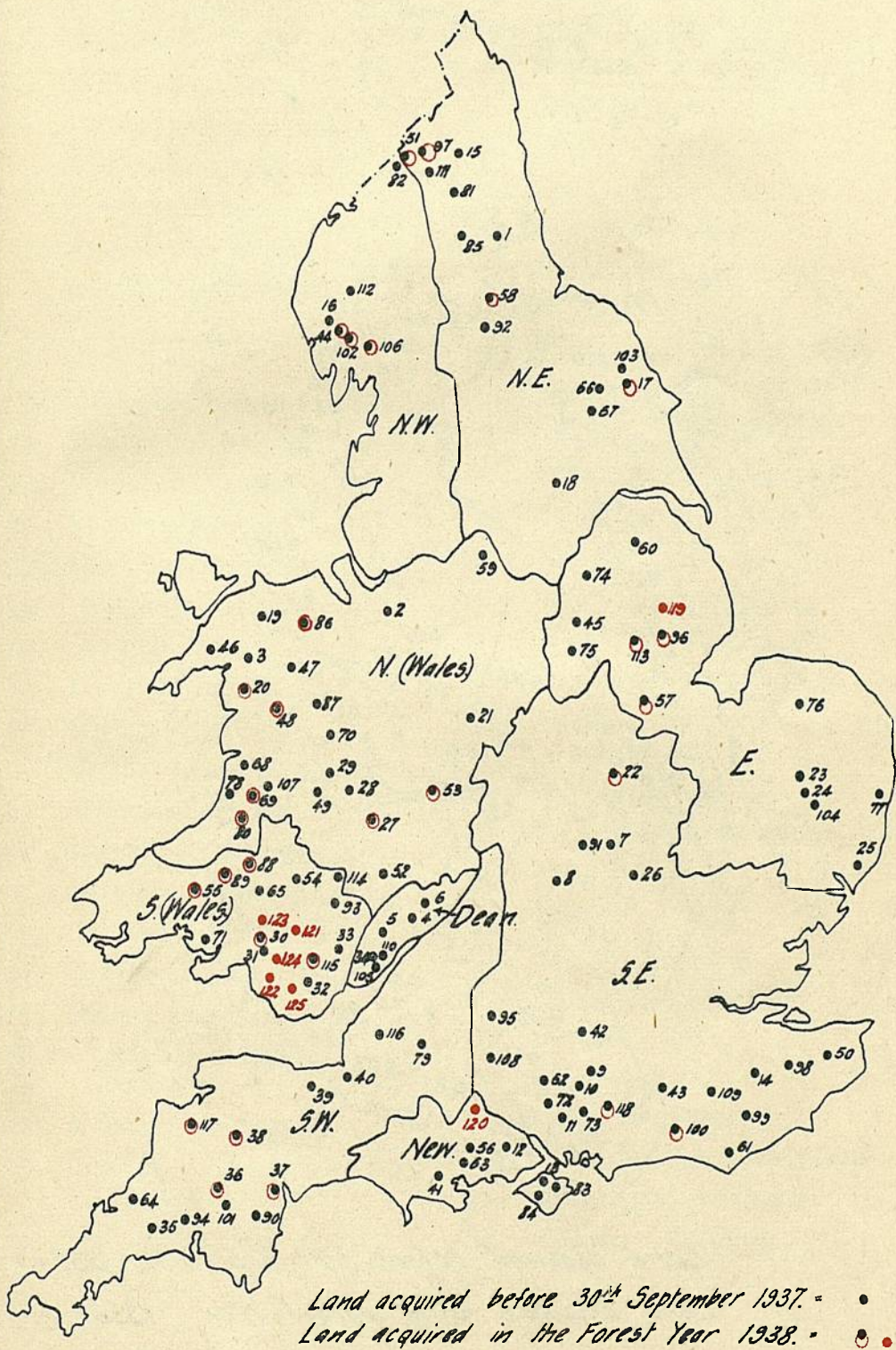
Forestry Commission Units.

ENGLAND AND WALES.

- | | |
|---|---|
| 1. Chopwell, Durham.* | 27. Mortimer, Hereford, Radnor and Salop. |
| 2. Delamere, Cheshire.* | 28. Walcot, Salop. |
| 3. Hafod Fawr, Merioneth.* | 29. Kerry, Montgomery and Salop. |
| 4. Dean Forest, Gloucester, Hereford and Monmouth.* | 30. Rheola, Glamorgan. |
| 5. Tintern, Monmouth.* | 31. Margam, Glamorgan. |
| 6. Dymock, Gloucester and Hereford.* | 32. Llantrisant, Glamorgan. |
| 7. Salcey, Bucks and Northampton.* | 33. Llanover, Monmouth. |
| 8. Hazelborough, Bucks and Northampton.* | 34. Chepstow, Monmouth. |
| 9. Alice Holt, Hants.* | 35. Bodmin, Cornwall. |
| 10. Woolmer, Hants.* | 36. Halwill, Devon. |
| 11. Bere, Hants.* | 37. Haldon, Devon. |
| 12. New Forest, Hants.* | 38. Eggesford, Devon. |
| 13. Parkhurst, Isle of Wight.* | 39. Brendon, Somerset. |
| 14. Bedgebury, Kent and Sussex.* | 40. Quantocks, Somerset. |
| 15. Rothbury, Northumberland. | 41. Wareham, Dorset. |
| 16. Thornthwaite, Cumberland. | 42. Bramshill, Berks and Hants. |
| 17. Allerston, Yorks. | 43. Chiddingfold, Surrey and Sussex. |
| 18. Selby, Yorks. | 44. Ennerdale, Cumberland. |
| 19. Gwydyr, Caernarvon and Denbigh. | 45. Clipstone, Derby and Nottingham. |
| 20. Coed-y-Brenin, Merioneth. | 46. Beddgelert, Caernarvon. |
| 21. Cannock Chase, Stafford. | 47. Cynwyd, Merioneth. |
| 22. Rockingham, Northampton. | 48. Dovey, Merioneth and Montgomery. |
| 23. Swaffham, Norfolk. | 49. Radnor, Radnor. |
| 24. Thetford Chase, Norfolk and Suffolk. | 50. Lyminge, Kent. |
| 25. Rendlesham, Suffolk. | 51. Kielder, Northumberland. |
| 26. Ampthill, Bedford. | 52. Haugh, Hereford. |
| | 53. Wyre, Worcester. |

* Former Crown woods.

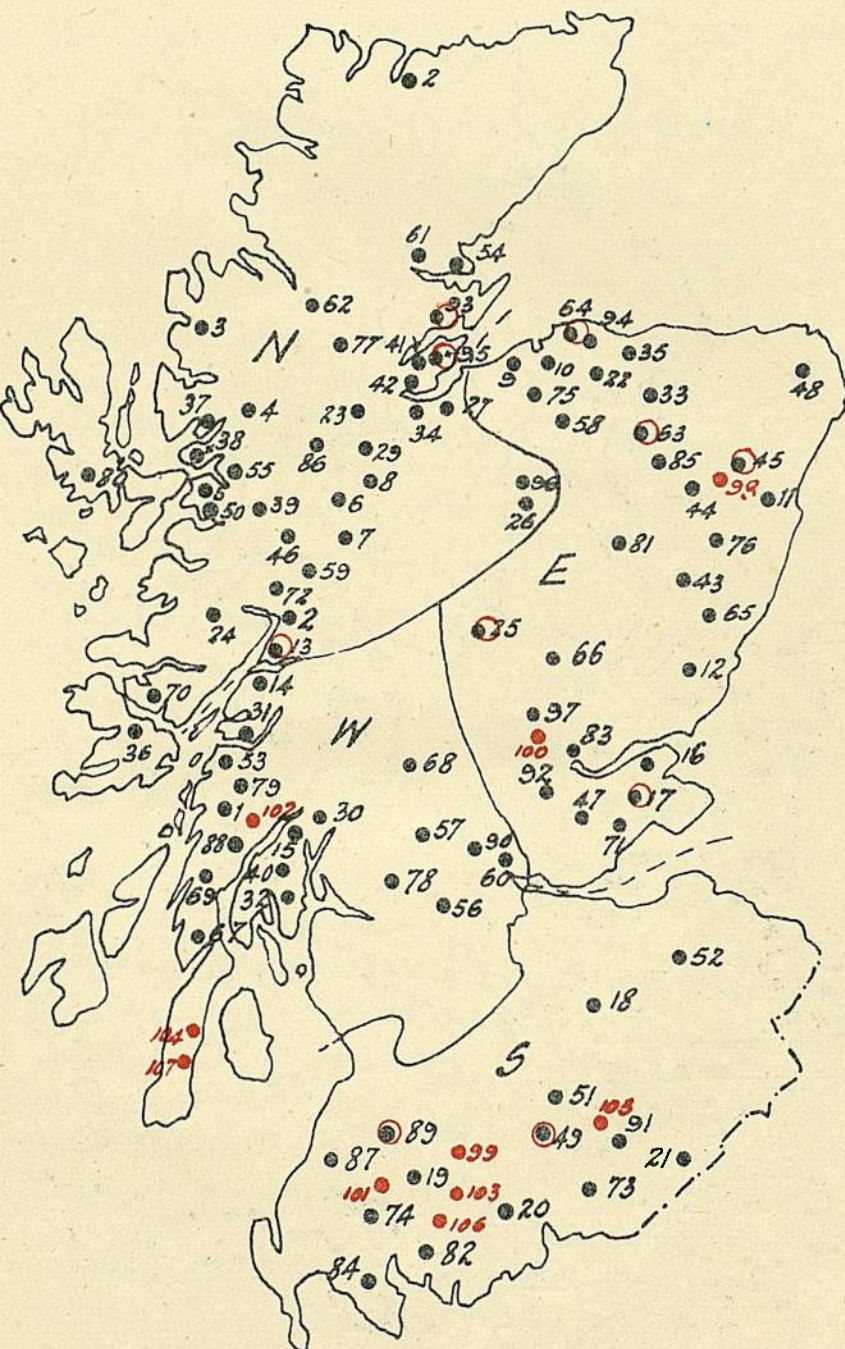
Sketch map showing the location of Units and the boundaries of the Divisions in England & Wales.



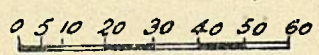
Land acquired before 30th September 1937. - ●
 Land acquired in the Forest Year 1938. - ●●

0 5 10 20 30 40 50 60
 Scale of Miles.

Sketch map shewing the location of Units and the boundaries of the Divisions in Scotland.



Land acquired before 30th September 1937 = ●
 Land acquired in the Forest Year 1938 = ●



Scale of Miles.

54. Brecon, Brecknock.
 55. Brechfa, Carmarthen.
 56. Ringwood, Dorset and Hants.
 57. Bourne, Lincoln and Rutland.
 58. Hamsterley, Durham.
 59. Hope, Derby.
 60. Laughton, Lincoln.
 61. Friston, Sussex.
 62. Micheldever, Hants.
 63. Ferndown, Dorset.
 64. Wilsey Down, Cornwall.
 65. Glasfynydd, Brecknock.
 66. Rosedale, Yorks.
 67. Ampleforth, Yorks.
 68. Cwmeinion, Cardigan.
 69. Tarenig, Cardigan and
 Montgomery.
 70. Mathrafal, Montgomery.
 71. Pembrey, Carmarthen.
 72. Westbury, Hants.
 73. Buriton, Hants and Sussex.
 74. Bawtry, Nottingham.
 75. Sherwood, Nottingham.
 76. Swanton, Norfolk.
 77. Dunwich, Suffolk.
 78. Brynmawr, Cardigan.
 79. Bruton, Somerset and Wilts.
 80. Myherin, Cardigan.
 81. Harwood, Northumberland.
 82. Kershope, Cumberland.
 83. Combley, Isle of Wight.
 84. Brighstone, Isle of Wight.
 85. Slaley, Northumberland.
 86. Clocaenog, Denbigh and
 Merioneth.
 87. Dyfnant, Montgomery.
 88. Crychan, Brecknock and
 Carmarthen.
 89. Caio, Carmarthen.
 90. Dartmoor, Devon.
 91. Yardley Chase, Bedford and
 Northampton.
 92. Arkengarthdale, Yorks.
 93. Mynydd Ddu, Brecknock and
 Monmouth.
 94. Herodsfoot, Cornwall.
 95. West Woods, Wilts.
 96. Bardney, Lincoln.
 97. Redesdale, Northumberland.
 98. Challock, Kent.
 99. Vinehall, Sussex.
 100. Goodwood, Sussex.
 101. Lydford, Devon.
 102. Hardknott, Cumberland.
 103. Langdale, Yorks.
 104. The King's Forest, Suffolk.
 105. Itton, Monmouth.
 106. Grizedale, Lancashire.*
 107. Hafren, Montgomery.
 108. Collingbourne, Wilts.
 109. Gravetye, Sussex.
 110. Sedbury, Gloucester.†
 111. Warke, Northumberland.
 112. Greystoke, Cumberland.
 113. Wigsley, Lincoln and
 Nottingham.
 114. Hay, Hereford.
 115. St. Gwynno, Glamorgan.
 116. Mendip, Somerset.
 117. Hartland, Devon.
 118. Marden, Sussex.
 119. Willingham, Lincoln.
 120. Gardiner, Wilts.
 121. Usk, Brecknock.
 122. Giedd, Brecknock.
 123. Coed-y-Rhaiads, Brecknock.
 124. Michaelston, Glamorgan.
 125. Cwmogwr, Glamorgan.

* Previously known at Hawkshead.

† Previously included under Chepstow.

SCOTLAND.

- | | | | |
|-----|--------------------------------|------|---------------------------------------|
| 1. | Inverliever, Argyll.* | 56. | Lennox Castle, Stirling. |
| 2. | Borgie, Sutherland. | 57. | Loch Ard, Perth. |
| 3. | Slattadale, Ross. | 58. | Scotmore, Moray. |
| 4. | Achnashellach, Ross. | 59. | Clunes, Inverness. |
| 5. | Ratagan, Inverness and Ross. | 60. | Devilla, Fife. |
| 6. | Inchnacardoch, Inverness. | 61. | Balblair, Sutherland. |
| 7. | South Laggan, Inverness. | 62. | Lael, Ross. |
| 8. | Port Clair, Inverness. | 63. | Clashindarroch, Aberdeen. |
| 9. | Culbin, Moray and Nairn. | 64. | Roseisle, Moray. |
| 10. | Monaughty, Moray. | 65. | Inglismaldie, Kincardine. |
| 11. | Kirkhill, Aberdeen. | 66. | Blackcraig, Perth. |
| 12. | Montreathmont, Angus. | 67. | Achaglachgach, Argyll. |
| 13. | Glen Righ, Inverness. | 68. | Strathyre, Perth. |
| 14. | Glenduror, Argyll. | 69. | Knappdale, Argyll. |
| 15. | Glenbranter, Argyll. | 70. | Fiunary, Argyll. |
| 16. | Tensmuir, Fife. | 71. | Carden, Fife. |
| 17. | Edensmuir, Fife. | 72. | Glenloy, Inverness. |
| 18. | Glentress, Peebles. | 73. | Auchenroddan, Dumfries. |
| 19. | Bennan, Kirkcudbright. | 74. | Kirroughtree, Kirkcudbright. |
| 20. | Dalbeattie, Kirkcudbright. | 75. | Newtyle, Moray. |
| 21. | Newcastleton, Roxburgh. | 76. | Durris, Aberdeen and
Kincardine. |
| 22. | Teindland, Moray. | 77. | Longart, Ross. |
| 23. | Glenurquhart, Inverness. | 78. | Garadhban, Stirling. |
| 24. | Glenhurich, Argyll. | 79. | Inverinan, Argyll. |
| 25. | Drummond Hill, Perth. | 80. | Glenbrittle, Isle of Skye. |
| 26. | The Queen's Forest, Inverness. | 81. | Alltcailleach, Aberdeen. |
| 27. | Culloden, Inverness. | 82. | Fleet, Kirkcudbright. |
| 28. | Nevis, Inverness. | 83. | Kinfauns, Perth. |
| 29. | Craig-nan-Eun, Inverness. | 84. | Kilsture, Wigtown. |
| 30. | Ardgartan, Argyll. | 85. | Whitehaugh, Aberdeen. |
| 31. | Barcaldine, Argyll. | 86. | Guisachan, Inverness. |
| 32. | Benmore, Argyll. | 87. | Changue, Ayr. |
| 33. | The Bin, Aberdeen. | 88. | Asknish, Argyll. |
| 34. | Craig Phadrig, Inverness. | 89. | Dundeugh, Kirkcudbright. |
| 35. | Ordiequish, Moray. | 90. | Carron Valley, Stirling. |
| 36. | Salen, Argyll. | 91. | Tinnisburn, Roxburgh and
Dumfries. |
| 37. | North Strome, Ross. | 92. | Glen Devon, Perth. |
| 38. | South Strome, Ross. | 93. | Ardross, Ross. |
| 39. | Glenshiel, Ross. | 94. | Lossie, Moray. |
| 40. | Glenfinart, Argyll. | 95. | Millbuie, Ross. |
| 41. | Findon, Ross. | 96. | Inshriach, Inverness. |
| 42. | Kessock, Ross. | 97. | Craigvinean, Perth. |
| 43. | Drumtochty, Kincardine. | 98. | Tilliefoure, Aberdeen. |
| 44. | Midmar, Aberdeen. | 99. | Corriedoo, Kirkcudbright. |
| 45. | Kennay, Aberdeen. | 100. | Keillour, Perth. |
| 46. | Glengarry, Inverness. | 101. | Cairn Edward, Kirkcudbright. |
| 47. | Blairadam, Fife and Kinross. | 102. | Minard, Argyll. |
| 48. | Forest of Deer, Aberdeen. | 103. | Garcrogo, Kirkcudbright. |
| 49. | Forest of Ae, Dumfries. | 104. | Carradale, Argyll. |
| 50. | Eilanreach, Inverness. | 105. | Twiglees, Dumfries. |
| 51. | Greskine, Dumfries. | 106. | Laurieston, Kirkcudbright. |
| 52. | Edgarhope, Berwick. | 107. | Saddell, Argyll. |
| 53. | Fearnoch, Argyll. | | |
| 54. | Dornoch, Sutherland. | | |
| 55. | Inverinate, Ross. | | |

* Former Crown wood.

Table E5.—Cultural Operations (Table E, Column 5).

Year ending 30th September.	PLANTATIONS.								NURSER- IES.	GRAND TOTAL.
	Prepara- tion of Ground. (1)	Drain- age. (2)	Fencing. (3)	Plant- ing. (4)	Weed- ing and Clean- ing. (5)	Beating- up. (6)	Forest Pro- tection. (7)	Total. (8)		
First decade :	£	£	£	£	£	£	£	£	£	£
1920-29	151,950	81,147	204,523	243,213	183,499	69,372	95,824	1,029,528	481,273	1,510,801
Second decade :										
1930	19,541	25,042	34,554	43,364	36,070	22,047	26,169	206,787	73,569	280,356
1931	17,522	29,463	38,449	43,096	35,803	19,040	27,134	210,597	75,051	285,558
1932	13,241	37,228	31,425	34,078	39,439	16,032	26,139	197,582	54,974	252,556
1933	10,307	36,563	29,748	29,105	44,113	18,729	32,187	200,752	53,611	254,363
1934	9,716	36,806	29,203	30,804	43,973	20,913	35,617	206,132	58,939	265,071
1935	8,124	41,604	29,537	31,974	46,695	21,532	35,253	214,719	66,769	281,488
1936	10,120	40,014	31,205	30,512	52,787	20,748	37,662	223,948	77,759	300,807
1937	10,022	43,817	34,368	31,737	73,009	25,020	44,503	262,476	83,608	346,084
1938	12,761	57,901	48,160	38,084	77,084	20,057	57,984	312,931	89,605	401,636
Total...	263,304	429,585	511,172	555,967	631,572	253,490	418,472	3,063,562	1,115,158	4,178,720
Percentage	6.3	10.3	12.2	13.3	15.1	6.1	10.0	73.3	26.7	100

Cultural Operations.—Expenditure amounted to £401,636, details of which are given in Table E5. Plantations accounted for £312,031 and nurseries £89,605.

Plantations.—The total area planted or sown during the year was 24,089 acres, of which 21,563 acres were placed under conifers and 2,526 acres under broadleaved species. Included in the above are 474 acres re-afforested in the former Crown woods and 211 acres replanted after damage by fire. Details by forests are given in Appendix II, pages 50-61.

The total addition to the woodland area of Great Britain as a result of the Commission's operations was 20,273 acres. In forming plantations and beating-up previous years' plantations 54 million trees were used, of which 47 per cent. were Norway and Sitka spruces; 24 per cent. Scots and Corsican pines; 9 per cent. European and Japanese larches; 1 per cent. Douglas fir, and 16 per cent. broadleaved species.

An area of 421 acres of existing woods was underplanted, necessitating the use of 435,000 plants.

The quantities of work done by Divisions during the year are shown in the table below.

Silvicultural Operations.

Division.	Planted and Sown.	Naturally Regenerated.	Under-planted.	Thinned.	Felled.
England and Wales—	Acres.	Acres.	Acres.	Acres.	Acres.
N.E.	4,239	—	—	152	13
N.W.	1,490	—	—	68	—
E.	1,981	67	—	347	32
S.E.	883	—	4	210	172
S.W.	683	—	—	116	18
New	625	—	323	1,003	145
Dean	351	15	17	1,435	208
N. (Wales) ...	2,382	—	32	442	78
S. (Wales) ...	2,354	—	32	44	—
Total	14,988	82	408	3,817	666
Scotland—					
North	2,078	—	—	221	28
South	1,689	—	13	156	—
East	2,345	—	—	522	11
West	2,989	—	—	233	22
Total	9,101	—	13	1,132	61
Total, Great Britain	24,089	82	421	4,949	727

Cost of Planting.—The outlay per acre on labour and material on the areas planted between 1919 and 1938 was as follows :—

	£	s.	d.
England and Wales	9	19	7
Scotland ...	10	0	6
Great Britain	...	...	10 0 0

These figures cover the cost of preparation of ground, drainage, fencing, plants, planting, replacement of failures and weeding, but do not include expenditure on forest protection, supervision and overhead charges.

Nurseries.—The total area under nurseries at 30th September, 1938, was 1,018 acres stocked with 284 million seedlings and 119 million transplants. Comparative figures for the three years 1936-38 are given in the following table :—

Nurseries.

Year ending 30th Sept.	Country.		Seed Sown (lb.).			Stock of Plants at 30th September (thousands).						Area (Acres).
						Transplants.			Seedlings.			
			Coniferous.	Broad-leaved.	Total.	Coniferous.	Broad-leaved.	Total.	Coniferous.	Broad-leaved.	Total.	
1938 ...	England and	Wales	2,598	94,492	97,090	64,758	13,638	78,396	138,029	7,609	145,638	618
	Scotland	...	2,651	5,270	7,921	39,127	1,077	40,204	92,945	45,196	138,141	400
	Total	...	5,249	99,762	105,011	103,885	14,715	118,600	230,974	52,805	283,779	1,018
1937 ...	England and	Wales	6,818	100,917	107,735	45,188	10,639	55,827	197,422	16,903	214,325	615
	Scotland	...	4,337	11,347	15,684	31,929	946	32,875	108,298	1,807	110,105	370
	Total	...	11,155	112,264	123,419	77,117	11,585	88,702	305,720	18,710	324,430	985
1936 ...	England and	Wales	5,892	65,943	71,835	40,557	8,170	48,727	121,661	17,714	139,375	600
	Scotland	...	4,732	8,457	13,189	25,692	789	26,481	74,929	1,791	76,720	346
	Total	...	10,624	74,400	85,024	66,249	8,959	75,208	196,590	19,505	216,095	946

Details showing by Divisions the utilisation of nursery area are as follows :—

Utilisation of Nursery Area.

Division.	Seedbeds.	Lines.	Fallow and Green Crops.	Other.	Total.
England and Wales—	Acres.	Acres.	Acres.	Acres.	Acres.
N.E.	22·6	63·8	8·1	15·7	110·2
N.W.	7	13	5	2·4	27·4
E.	30·2	59	23·5	14·1	126·8
S.E.	11·8	37·9	4·9	8	62·6
S.W.	6·4	9·5	7·5	6·2	29·6
New	15·9	18·1	7·6	3·5	45·1
Dean	9·3	15·4	10·1	4·9	39·7
N. (Wales)	23·2	32·5	17·6	12·6	85·9
S. (Wales)	15·9	50·2	8·6	15·9	90·6
Total	142·3	299·4	92·9	83·3	617·9
Scotland—					
North	18·7	33·9	19·2	14·3	86·1
South	4·1	8·9	12·6	4·8	30·4
East	26·4	44·9	26·7	25	123
West	40·7	64·2	42·1	13·1	160·1
Total	89·9	151·9	100·6	57·2	399·6
Total, Great Britain	232·2	451·3	193·5	140·5	1,017·5

Seed Supply.—The 1937 crop of Douglas fir was almost a complete failure in the United States and Canada, but ample supplies of Sitka spruce were obtainable. There was a good crop of Japanese larch, it being reported from Japan that this was the first year, and the best, of a cycle of seven years which the seed crop usually followed. On the Continent, there were abundant supplies of Norway spruce and European larch, but Corsican pine seed, although of exceedingly good quality, was scarce; the oak crop was reported to be plentiful but beech failed generally.

As regards home-collected seed, in England and Wales sufficient cones of Scots pine were obtainable despite fears to the contrary earlier in the season; practically no seed of European larch and Japanese larch was forthcoming and the year was the worst in the Commission's experience for the collection of beech; supplies of ash, chestnut and sycamore were adequate. In Scotland, there were small crops of Scots pine, European larch, oak and beech, but there were plentiful supplies of ash.

The quantity of seed sold during the year was 271 lb.

Gifts of seed were received from Mr. Blanchet (Quebec) and from firms in the United States and British Columbia.

Forest Fires.—As has already been stated, the weather conditions which prevailed in the early part of 1938 gave rise to one of the worst fire seasons which the Commissioners have yet experienced. During the year 1,144 fires occurred compared with 438 in 1937 and with 621 in 1933, hitherto the greatest number.

The planted area affected was 2,066 acres, the damage being assessed at £39,910. In 1937 the fires had been confined to very small areas, only 126 acres being burned with a loss of £2,140. In only one previous year has greater damage been done. In 1929, 4,574 acres were burned with a loss of £45,960.

Comparative figures for the five years 1934 to 1938 are given below.

	1934.	1935.	1936.	1937.	1938.
Number of fires ...	500	487	407	438	1,144
Area burnt (acres)...	741	270	1,563	126	2,066
Damage valued at...	£12,166	£4,090	£20,170	£2,140	£39,910

In addition eight fires caused damage to buildings amounting to £143.

Claims aggregating £4,725 have been lodged by the Commissioners in respect of the damage done during the year.

The following table gives the causes of fires in 1938 and it will be seen that most fires originated in sparks from railway engines, but a very large number (218) were caused by the general public mainly as the result of carelessness.

<i>Origin.</i>	<i>Number of Fires.</i>	<i>Percentage of total Number.</i>
Railways ...	475	42
General public :		
From public roads, etc.	160	14
Other ...	58	5
Adjoining land ...	171	15
Incendiarism ...	13	1
Commission's employees	13	1
Road engines ...	5	—
Other ...	12	1
Unknown ...	237	21
Totals	1,144	100

Subhead F—Advances for Afforestation Purposes.

Expenditure, £13,872.

Grants to private individuals and local authorities for planting amounted to £10,526, advances in respect of a proceeds-sharing scheme to £121 and overhead and supervisory charges to £3,225.

The grants were as follows :—

(1) *Conifers*.—Up to £2 per acre planted or sown and thereafter maintained as a forest crop.

(2) *Hardwoods*.—For every acre planted or sown with approved species and thereafter maintained as an area for the production of hardwoods :—up to £4 per acre for oak or ash; £3 per acre for beech, sycamore or chestnut, and £2 per acre for other approved species.

The number of schemes in respect of which grants were paid during the year and the areas dealt with are stated below :—

—	England and Wales.	Scotland.	Total.
Number of Schemes ...	257	93	350
	Acres.	Acres.	Acres.
Planting conifers ...	2,179	1,492	3,671
Planting hardwoods ...	1,022	53	1,075

Planting under the proceeds-sharing scheme was completed in 1937 and further advances were in respect of maintenance expenditure.

Subhead G—Education. Expenditure, £12,608.

Details of expenditure are given in Table G.

Apprentices' Schools: Expenditure, £5,191.—Sixty-one forest apprentices underwent courses of instruction at Parkend (Forest of Dean) and Benmore (Argyllshire). Forty apprentices who completed the two years' course were granted certificates of proficiency.

Grants to Universities, Colleges, etc.: Expenditure, £1,922.—Grants were made during the year to the following :—Oxford University; Cambridge University; University College of North Wales, Bangor; King's College, Newcastle-on-Tyne; Aberdeen University; Edinburgh and East of Scotland College of Agriculture; Royal Scottish Forestry Society.

Table G.—Education.

Year ending 30th September.	EXPENDITURE (Table IIa, Column 4).							INCOME.	NET EXPEN- DITURE.
	Superior Super- vision and Over- head Charges.	Apprentices' Schools.				Grants to Insti- tutions.	Total.		
		Salaries and Expenses of In- structors.	Purchase and Rent of Land and Build- ings.	Allow- ances to Appren- tices.	Stores, Fuel, Light, etc.				
	£	£	£	£	£	£	£	£	
First decade :									
1920-29	13,125	15,401	6,195	21,709	14,192	30,691	101,313	2,427	98,886
Second decade :									
1930	900	820	838	2,203	1,215	4,232	10,208	263	9,945
1931	880	759	1,949	2,143	1,450	4,230	11,411	64	11,347
1932	789	882	259	1,982	968	4,004	8,884	5	8,879
1933	1,010	980	188	1,473	719	3,856	8,226	38	8,188
1934	1,148	1,072	270	1,163	623	3,782	8,058	34	8,024
1935	976	1,142	205	1,177	634	3,879	8,013	38	7,975
1936	1,407	1,220	374	1,383	760	3,930	9,074	—	9,074
1937	1,603	1,265	523	1,948	1,025	3,931	10,295	1	10,294
1938	1,598	1,354	640	2,185	1,012	5,819	12,608	—	12,608
Total	23,436	24,895	11,441	37,366	22,598	68,354	188,090	2,870	185,220
Percentage	12.5	13.2	6.1	19.9	12.0	36.3	100		

The number of students studying forestry at the Universities was 78; 22 forestry degrees were granted, and five candidates obtained diplomas.

Imperial Forestry Institute: Expenditure, £2,000.—The annual grant to the Imperial Forestry Institute from the Forestry Fund was continued. Fourteen students attended for the whole or part of the year, comprising 2 post-graduate probationers from the Colonial Services and 12 forest officers on leave (India 1, Dominion Service 2, Colonial Services 9).

Short Courses for Foresters: Expenditure, £1,897.—As stated in last year's Annual Report, with the assistance of the Forestry Societies arrangements were made in England for training at Raby Castle, Dartington Hall and Weasenham, and in Scotland at Bowhill and Darnaway. The courses consisted of practical work, lectures and discussions under qualified instructors selected by the Forestry Societies, and were attended by 54 woodmen from private estates.

Subhead H—Research and Experiment.

Expenditure : Gross, £17,583 ; Net, £17,188.

Details of expenditure are given in Table H.

Production.—Three sample plots of Japanese larch in the west of Scotland were lost owing to damage by storm; no new plots were established during the year under review, and the

Table H.—Research and Experiment.

Year ending 30th September.	EXPENDITURE (Table IIa, Column 5).					INCOME.	NET EXPENDI- TURE.
	Superior Super- vision and Overhead Charges.	Salaries and Expenses.	Labour, Stores, etc.	Grants to Institu- tions.	Total.		
	£	£	£	£	£	£	£
First decade :							
1920-29	13,699	38,458	20,230	7,263	79,650	1,058	78,592
Second decade :							
1930	1,316	5,079	4,529	1,414	12,338	105	12,233
1931	1,292	5,323	4,588	1,395	12,598	278	12,320
1932	1,149	5,329	4,452	1,396	12,326	42	12,284
1933	1,233	5,294	4,009	1,616	12,182	78	12,104
1934	1,181	4,911	3,804	1,405	11,301	420	10,881
1935	1,297	5,012	4,265	3,105	13,739	143	13,596
1936	1,444	5,416	4,123	3,149	14,132	404	13,728
1937	1,792	5,705	5,168	3,624	16,289	372	15,917
1938	1,736	6,134	5,810	3,903	17,583	395	17,188
Total	26,139	86,661	60,978	23,360	202,138	3,295	198,843
Percentage	12·9	42·9	30·2	11·0	100		

total number is now 216. Sixty-two plots were remeasured during the course of the year.

Nursery and Plantation Experiments.—The difficulty of obtaining sufficient supplies of farmyard manure or leaf mould for manuring in forest nurseries has led to the trial of various forms of dried peat as a means of improving the moisture retention and aeration of the soil. Results have varied considerably but on the whole have been disappointing, only two out of ten nurseries showing any definite response to the treatment.

The use of coarse sand or fine gravel for covering seedbeds of small-seeded species such as the spruces, larches and tsga, has now passed out of the experimental stage and is becoming part of the standard practice in Divisional nurseries. The best type of sand is one containing no particles of either silt or very fine sand and also free from compounds of iron; failures in practice are usually due to the use of a sand which is not sufficiently free from impurities.

The Commissioners have co-operated in an international experiment on the provenance of seed of Scots pine and Norway spruce. A quantity of Scots pine cones was collected in Glenmore Forest, Inverness-shire, and sent to Germany for extraction and distribution. Seed of Norway spruce from 23 different stations in Europe was also sown in Newton Nursery; the origin ranged from the extreme north of Finland to the Carpathians. It is proposed to use the plants for the establishment of a series of comparative plots in a suitable forest area.

Experimental plots on the poorer types of peat in the north and west of Scotland are giving encouraging results. On this type of ground *Pinus contorta* is proving a very useful species particularly when planted in mixture with Sitka spruce; another exotic species, the Japanese larch, has also shown itself capable of growing under these difficult conditions. Experience has shown, however, that a small dose of a phosphatic manure such as basic slag or ground mineral phosphate, applied at the time of planting, is a requisite for success on the worst forms of peat.

Pinus contorta has also shown its value in mixture with Sitka spruce on some of the poor upland heaths, such as at Teindland Forest in Morayshire where the mixed plots of the two species are showing much better growth than the adjacent plots of pure Sitka spruce. The other side of the picture is seen at Wareham Forest in Dorset, a heath area over Bagshot sands and at a lower elevation. Here, *Pinus contorta*, though growing well, has been attacked by a curious disease which is believed to be of the same nature as a malady on exotic pines reported from Australia, and known as "fused needle." The cause is at present unknown.

Experiments on the raising of beech under an advance crop of Scots pine on the dry sandy soils of Thetford Forest in East Anglia show that the beech tolerate very little shade in this area. It is proving difficult to regulate the pine canopy so that the beech have sufficient light and freedom from root competition and are yet protected from the late frosts which are such a constant feature of the Thetford climate.

The chalk downs of the south of England form another characteristic soil type on which experimental work has been in progress for some years. A survey recently completed indicates the importance of a careful study of the soil and vegetation, and these are far more varied than appears at first sight. The position is complicated by the irregular distribution of a post-Cretaceous deposit of clay-with-flints which, though often very thin, usually provides better conditions for tree growth than where this deposit is lacking.

Entomology and Mycology.—An investigation into the distribution and control of the pine shoot beetle has now been completed and a report is in course of preparation. Work continued on the chafer larvae which are so destructive in forest nurseries. Various chemicals have been tried both as soil insecticides and as deterrents to egg-laying but so far with relatively little success.

The elm disease showed a slight abatement in many districts, though it is feared that this is only temporary.

A number of Continental mycologists visited Great Britain during the autumn to compare the behaviour of a needle-shedding disease (*Adelopus*) of Douglas fir with the same disease on the Continent. The visit was curtailed owing to the European crisis but the disease was found on a private estate in the south of Scotland.

Botany and Soils.—Work on the mycorrhiza of forest trees has continued and Dr. M. C. Rayner has examined beech seedlings and transplants from a number of the Commission nurseries. Other species investigated include Sitka spruce, Scots pine, Corsican pine and *Pinus contorta*. A sowing experiment carried out on a peat soil at Inchnacardoch Forest and using an organic compost is giving interesting results.

The soil survey of two forest areas in Aberdeenshire has been completed and it is hoped to publish a report shortly. Dr. A. Muir of the Macaulay Research Institute has made a survey of Rothbury Forest in Northumberland.

Voles.—A three-year investigation by the Bureau of Animal Population, Oxford University, is nearing completion. A successful technique has been developed for breeding voles in captivity and considerable progress has been made in the study of the natural epidemics of these pests. The work has produced further evidence on the periodicity of vole outbreaks.

Advisory Committee on Forest Research.—The Committee held its eleventh meeting at Bettws-y-Coed in North Wales; Gwydyr and Coed-y-Brenin Forests were visited as well as experimental plots on peat soils near Beddgelert.

Utilisation.—Tests have been carried out by the Forest Products Research Laboratory on the suitability of *Thuja* thinnings for telegraphic poles. The need for a market for these poles has arisen owing to the occurrence of heart-rot in young plantations of this species, which has necessitated heavy thinning and, in some cases, clear felling. The Commissioners continue to keep in close touch with the work of the Laboratory.

Subhead J—Agency and Advisory Services. Expenditure :

Gross, £1,282 ; Net, £772.

No direct expenditure was incurred under this head. The sum of £1,282 is an apportionment of overhead and supervisory charges in respect of the time of various officers of the Commission who have been engaged in answering enquiries and advising woodland owners as to the treatment of their woods.

Subhead K—Special Services. Expenditure, £10,496.

Details of expenditure are given in Table K.

Table K.—Special Services.

Year ending 30th September.	EXPENDITURE (Table IIa, Column 7).						IN- COME.	NET EXPEN- DITURE.
	Superior Supervision and Overhead Charges.	Consulta- tive Com- mittees' Expenses.	Publi- cations.	Special Enquiries.	Relief of Un- employ- ment.	Total.		
First decade : 1920-29 ...	£ 26,585	£ 523	£ 1,995	£ 12,368	£ 19,828	£ 61,299	£ 347	£ 60,952
Second decade :								
1930	1,822	60	68	147	—	2,097	—	2,097
1931	1,478	32	126	255	—	1,891	8	1,883
1932	1,684	25	87	561	—	2,357	2	2,355
1933	1,598	7	28	466	—	2,099	—	2,099
1934	1,591	1	116	745	—	2,453	6	2,447
1934	3,750	10	196	1,056	—	5,012	4	5,008
1936	2,869	7	4	3,091	—	5,971	—	5,971
1937	2,403	3	74	2,290	—	4,770	—	4,770
1938	8,257	—	164	2,075	—	10,496	—	10,496
Total... ..	52,037	668	2,858	23,054	19,828	98,445	367	98,078
Percentage ...	52·9	0·7	2·9	23·4	20·1	100		

Census of Woodlands.—There has been an increase in expenditure due to the Census of Woodlands, an account of which appears on page 19.

Publications.—The following publications were issued during the year:—*Eighteenth Annual Report of the Forestry Commissioners* (being the report for the year ending 30th September, 1937); *Report of the National Forest Park Committee* (Forest of Dean), 1938, and *The Argyll National Forest Park Guide*. In addition, Leaflets Nos. 10 (*The Oak-Leaf Roller Moth*), 11 (*Larch-Shoot Moths*), 15 (*The Felted Beech Coccus*), 16 (*Larch Canker*), and 20 (*Watermark Disease of the Cricket Bat Willow*) were revised and reprinted.

Empire Exhibition, Scotland, 1938.—The Commission's exhibit in the Agriculture and Forestry Pavilion at the Exhibition aroused considerable interest.

International Union of Forest Research Organisations.—The eleventh meeting of the International Union was held in Finland in August, 1938, when a representative of the Forestry Commission attended.

British Association for the Advancement of Science.—The Commissioners took an active part in the Forestry Section at the meeting held in Cambridge in August, 1938. The Chairman of the Commissioners presided and several Divisional Officers read papers on the cultivation of hardwoods. It is hoped to reproduce these papers in bulletin form in the near future.

Excursions were made to neighbouring woodland estates including a visit to Thetford Chase in Norfolk and Suffolk.

Consultative Committees.—The members of the respective Committees were all re-appointed as from the 28th March, 1938, in accordance with Section 1 (3) of the Forestry (Consultative Committees) Order, 1920. They included Professor H. M. Steven and Mr. R. Angus Galloway who had been appointed members of the Scottish Committee earlier in the year under review. In June, Sir Gerald Trevor, C.I.E., was re-appointed a member of the Welsh Committee from which he had resigned in 1930 on taking up an appointment in India.

Subhead L—Forest Workers' Holdings.

Expenditure, £59,452 ; Income, £18,465.

Total expenditure was £10,724 less than in 1937. Details are given in Table L.

During the year further holdings were completed, raising the net total from 1,299 to 1,376. The average cost of establishing holdings is £491, of which land accounts for £70, and cost of buildings, drainage, water supply, etc., £421.

The information contained in the following statement indicates the way in which the holdings have been utilised and shows the estimated value of live stock, etc.

Number of forest workers resident on the holdings	1,363
Total number of residents on the holdings	5,212
Average annual rent of house, outbuildings and land	£14
Average area (including outrun)	11 acres.
Head of live stock :—	
Horses	447
Cows	1,082
Other cattle (including calves)	1,254
Sheep	6,259
Pigs	1,964
Poultry	51,092
Miscellaneous (including goats)	1,150
Estimated value of live stock	£49,627

Table L.—*Forest Workers' Holdings.*

Year ending 30th September.	EXPENDITURE (Table IIa, Column 8).							INCOME (Table IIa, Column 11).				NET EXPEN- DITURE. (12)
	Superior Super- vision and Overhead Charges. (1)	Purchase and Rent of Land and Buildings. (2)	Buildings. (3) (4) (5)			Fencing, Drainage, etc. (6)	Miscel- laneous. (7)	Total. (8)	Rents. (9)	Other. (10)	Total. (11)	
			New. (3)	Adapta- tions. (4)	Repairs. (5)							
First decade :	£	£	£	£	£	£	£	£	£	£	£	
1920-29 ...	35,894	103,940	192,184	32,302	3,882	17,561	4,120	389,883	26,261	1,254	27,515	362,368
Second decade :												
1930 ...	11,196	34,410	43,126	10,932	2,536	5,902	473	108,575	12,119	87	12,206	96,369
1931	11,654	17,437	54,095	15,435	3,528	6,713	758	109,020	13,568	15	13,583	95,437
1932	9,157	3,974	26,635	4,352	6,696	4,511	1,032	56,357	16,781	30	16,811	39,546
1933	7,632	(cr.) 1,101*	4,375	3,166	3,424	1,004	937	19,437	17,145	83	17,228	2,209
1934	7,480	4,546	2,064	2,285	2,926	1,238	878	21,417	17,278	94	17,372	4,045
1935	6,937	4,066	2,617	2,502	4,110	874	585	21,685	17,497	54	17,551	4,134
1936	8,382	10,374	4,352	1,145	4,163	582	1,075	30,073	18,013	46	18,064	12,009
1937	10,296	19,673	31,561	933	5,354	1,284	1,075	70,176	18,217	435	18,652	51,524
1938	9,890	11,642	25,748	1,575	6,925	2,263	1,409	59,452	18,449	16	18,465	40,987
Total ...	117,918	268,955	386,757	74,627	43,544	41,932	12,342	886,075	175,333	2,114	177,447	708,628
Percentage ...	13.3	23.6	43.7	8.4	4.9	4.7	1.4	100	98.8	1.2	100	

* Credit entry due to transfer to forestry operations of land and buildings not required for holdings.

Subhead Z—Income, £247,235.

Total income was £1,943 greater than in 1937. Sales of land and buildings increased by £13,262, rents and royalties by £7,358, and forest produce by £12,140; "other" income decreased by £31,003, but in 1937 this head included an abnormal receipt of £31,500 in respect of a repayment of loan for mining purposes. Details are given in Table Z.

Table Z.—Income.

Year ending 30th September.	Forestry Operations.					Forest Workers' Holdings (Rents, etc.).	Miscel- laneous.	Grand Total.
	Sales of Land and Buildings.	Rents and Royalties.	Forest Produce.	Other.	Total.			
	£	£	£	£	£	£	£	£
First decade : 1920-29	78,784	274,091	406,594	122,639	882,108	27,515	6,936	916,559
Second decade :								
1930	2,642	65,184	63,949	16,219	147,994	12,206	406	166,606
1931	15,568	71,930	56,768	20,802	165,068	13,583	386	179,037
1932	7,869	70,249	49,477	16,621	144,216	16,811	77	161,104
1933	4,463	75,127	47,321	11,030	137,941	17,228	170	155,339
1934	12,258	78,120	55,893	16,861	163,132	17,372	518	181,022
1935	6,394	81,622	63,112	18,074	169,202	17,551	270	187,023
1936	5,708	83,027	73,111	21,184	183,030	18,064	507	201,601
1937	2,407	84,753	89,814	48,992	225,966	18,652	674	245,292
1938	15,669	92,111	101,954	17,989	227,723	18,465	1,047	247,235
Total	151,762	976,214	1,007,993	310,411	2,446,380	177,447	10,991	2,634,818
Percentage	5·8	37·1	38·2	11·8	92·9	6·7	0·4	100

The increase in sales of land and buildings was mainly due to one large sale comprising a mansion house, cottages and land not required for afforestation purposes. Rents and royalties include £17,848 from the Forest of Dean mines. "Other" income includes sales of live stock £10,855, and miscellaneous estate, farm and forest receipts £6,691.

As regards forest produce, a fall in prices was experienced during the year, especially for pit-props, but income under this head was greater than in 1937 owing to an increase in the volume of produce sold or used for Commission purposes. Thinnings have commenced in some of the plantations formed in the early years of the Commission's existence.

Employment in the Commission's Forests.

The number of forest workers employed in the Commission's forests is stated in the table below :—

Summer (Minimum).			Winter (Maximum).		
1920 ...	...	210	1920-21...	...	935
1921 ...	...	495	1921-22...	...	1,780
1922 ...	...	525	1922-23...	...	1,775
1923 ...	...	880	1923-24...	...	2,220
1924 ...	...	1,620	1924-25...	...	2,650
1925 ...	...	1,980	1925-26...	...	2,960
1926 ...	...	2,335	1926-27...	...	3,185
1927 ...	...	2,735	1927-28...	...	3,495
1928 ...	...	2,740	1928-29...	...	3,565
1929 ...	...	2,640	1929-30...	...	3,835
1930 ...	...	3,130	1930-31...	...	3,850
1931 ...	...	2,830	1931-32...	...	3,505
1932 ...	...	2,720	1932-33...	...	3,985
1933 ...	...	2,845	1933-34...	...	3,735
1934 ...	...	3,015	1934-35...	...	4,020
1935 ...	...	3,280	1935-36...	...	4,155
1936 ...	...	3,720	1936-37...	...	4,565
1937 ...	...	4,065	1937-38...	...	5,110
1938 ...	...	4,555	1938-39...	...	5,395

(Signed) R. L. ROBINSON (*Chairman*).

G. L. COURTHOPE.

D. R. GRENFELL.

A. RODGER.

L. ROPNER.

W. R. SMITH.

S. STRANG STEEL.

JOHN SUTHERLAND.

W. L. TAYLOR.

A. G. HERBERT,

Secretary,

25, Savile Row,

London, W.1.

APPENDIX I.

Imports of Timber, Wood Manufactures and Pulp of Wood.

Statistics relating to these imports are given in the following table, the figures in each case being for the calendar year.

Imports of unmanufactured timber in 1938 amounted to 9,388,000 loads valued at £42,896,000, being 3,434,000 loads (27 per cent.) and £18,875,000 (31 per cent.) less than in the previous year. There was a falling off in quantities in practically all categories of timber imported and in some cases there was a still greater decline in prices. Sawn hardwoods showed a decrease of 34 per cent. both in the quantity imported (616,000 loads) and the value (£5,702,000), and sawn softwoods fell by 1,930,000 loads (28 per cent.) from 6,810,000 loads to 4,880,000 loads and £11,177,000 (36 per cent.) from £30,899,000 to £19,722,000. The fall in planed and dressed timber was 121,000 loads (10 per cent.) from 1,176,000 loads to 1,055,000 loads and £1,235,000 (19 per cent.) from £6,438,000 to £5,203,000, while the quantity (1,646,000 loads) and value (£4,688,000) of pit-props were respectively 36 per cent. and 39 per cent. less than in 1937.

There was also a considerable decline in the value of wood manufactures, imports in 1938 being £6,288,000 compared with £8,390,000 in the previous year, a decrease of £2,102,000 (25 per cent.). Plywood fell by £1,612,000 (32 per cent.) from £4,970,000 to £3,358,000 and builders' woodwork by £308,000 (23 per cent.) from £1,338,000 to £1,030,000.

Imports of pulp of wood fell from 1,793,651 tons air-dry weight in 1937 to 1,618,102 tons air-dry weight in 1938, a decrease of 10 per cent. but there was an increase in value of £551,000 (4 per cent.).

Imports of Timber, Wood Manufactures and Pulp of Wood.

Description.	Quantities (thousands).				Value (thousands).			
	Average 1909-13.	Average 1914-18.	1937.	1938.	Average 1909-13.	Average 1914-18.	1937.	1938.
	TIMBER.							
Hewn-hard—	Loads.*	Loads.*	Loads.*	Loads.*	£	£	£	£
Mahogany ...	—	—	38	36	—	—	340	312
Oak ...	—	—	4	2	—	—	39	20
Walnut ...	—	—	2	47	—	—	24	422
Teak ...	—	—	3		—	—	33	
Other sorts ...	—	—	39		—	—	355	
Hewn - soft (fir, pine, spruce, etc.).	542	129	297	295	1,353	583	835	948

* Load = 50 cu. ft.

APPENDIX I—contd.

Imports of Timber, Wood Manufactures and Pulp of Wood—contd.

Description.	Quantities (thousands).				Value (thousands).			
	Average 1909-13.	Average 1914-18.	1937.	1938.	Average 1909-13.	Average 1914-18.	1937.	1938.
TIMBER.								
Sawn hard—	Loads.*	Loads.*	Loads.*	Loads.*	£	£	£	£
Mahogany ...	—	—	22	17	—	—	327	248
Walnut ...	—	—	7	5	—	—	138	90
Oak ...	—	—	301	184	—	—	3,040	1,839
Teak ...	—	—	58	37	—	—	1,248	829
Other sorts ...	—	—	546	373	—	—	3,853	2,696
Sawn-soft, other than planed or dressed.	—	—	6,810	4,880	—	—	30,899	19,722
Planed or dressed—								
Hard ...	—	—	94	74	—	—	760	587
Soft ...	—	—	1,082	981	—	—	5,678	4,616
Other descriptions—								
Pit-props ...	2,944	1,673	2,556	1,646	3,510	4,425	7,716	4,688
Staves ...	161	71	66	44	795	648	742	541
Sleepers ...	—	130	473	387	—	602	2,225	1,967
Veneers ...	—	—	15	12	—	—	975	732
Boxboards ...	—	—	327	293	—	—	1,950	1,807
Telegraph poles	—	—	65	75	—	—	275	393
Not elsewhere specified.	6,557†	3,550†	17	—	21,903†	24,362†	319	439
Total unmanu- factured timber.	10,204	5,553	12,822	9,388	27,561	30,620	61,771	42,896
WOOD MANUFACTURES.								
Furniture and cabinet ware.	—	—	—	—	416	115	492	403
Builders' wood- work (window frames, doors, etc.).	—	—	—	—	180	62	1,338	1,030
Plywood ...	—	—	—	—	—	—	4,970	3,358
Domestic wood- work (bread platters, trays, etc.).	—	—	—	—	—	—	214	202
Tool handles ...	—	—	—	—	—	—	135	} 1,295
Not elsewhere specified.	—	—	—	—	2,099	1,821	1,241	
Total manu- factured timber.	—	—	—	—	2,695	1,998	8,390	6,288
PULP OF WOOD.								
Pulp of wood ...	Tons. 859	Tons. 682	Tons. 1,794‡	Tons. 1,618‡	4,058	7,915	13,689	14,240

* Load = 50 cu. ft.

† These figures apply mainly to sawn softwoods. It is not possible to differentiate according to the various categories enumerated above owing to a change in the Board of Trade classification from 1920 onwards.

‡ Air-dry weight.

APPENDIX

Plantations. Year ended 30th

Forest.	Area planted (acres).					
	Afforested.		Re-afforested.		Total.	
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Alice Holt, Hants*	—	—	35	25	35	25
Allerston, Yorks	228	21	—	—	228	21
Ampleforth, Yorks	35	—	57	23	92	23
Ampthill, Bedford	—	—	—	—	—	—
Arkengarthdale, Yorks... ..	75	—	—	—	75	—
Bardney, Lincoln	—	—	—	71	—	71
Bawtry, Nottingham	—	—	—	—	—	—
Beddelert, Caernarvon	45	—	—	—	45	—
Bedbury, Kent and Sussex*... ..	—	—	7	25	7	25
Bere, Hants*	—	—	—	6	—	6
Bodmin, Cornwall	—	—	39	9	39	9
Bourne, Lincoln and Rutland... ..	—	—	—	—	—	—
Bramshill, Berks and Hants	—	—	—	—	—	—
Brechfa, Carmarthen	493	51	34	—	527	51
Brecon, Brecknock	74	3	10	7	84	10
Brendon, Somerset	34	3	4	1	38	4
Brightstone, Isle of Wight	27	47	—	—	27	47
Bruton, Somerset and Wilts	1	1	2	6	3	7
Brynmawr, Cardigan	52	—	—	—	52	—
Buriton, Hants and Sussex	—	—	—	61	—	61
Caio, Carmarthen	101	10	4	1	105	11
Cannock Chase, Stafford	10	—	22	—	32	—
Challock, Kent	—	—	6	71	6	71
Chepstow, Monmouth	—	—	—	—	—	—
Chiddingfold, Surrey and Sussex	—	—	5	7	5	7
Chopwell, Durham*	—	—	1	—	1	—
Clipstone, Derby and Nottingham	59	16	56	20	115	36
Clocaenog, Denbigh and Merioneth.	409	4	87	—	496	4
Coed-y-Brenin, Merioneth	226	—	43	29	269	29
Collingbourne, Wilts	—	—	—	50	—	50
Combley, Isle of Wight	—	—	—	38	—	38
Crychan, Brecknock and Carmarthen.	203	—	14	—	217	—
Cwmeinion, Cardigan	42	—	—	—	42	—
Cynwyd, Merioneth	5	—	—	—	5	—
Dartmoor, Devon	105	1	—	—	105	1
Dean Forest, Gloucester, Hereford and Monmouth.*	—	11	64	168	64	179
Delamere, Cheshire*	—	—	—	—	—	—
Dovey, Merioneth and Montgomery.	283	—	73	—	356	—
Dunwich, Suffolk	—	—	—	—	—	—
Dyfnant, Montgomery	50	—	—	—	50	—
Dymock, Gloucester and Hereford.*	—	—	13	8	13	8
Eggesford, Devon	—	—	13	—	13	—
Ennerdale, Cumberland	157	4	—	—	157	4

* Former Crown woods.

II.

September, 1938—England and Wales.

Species planted, including beating-up (thousands).									Forest.
Scots and Corsican Pines.	Eur. and Jap. Larches.	Douglas Fir.	Norway and Sitka Spruces.	Oak.	Ash.	Beech.	Others	Total.	
62	13	—	2	79	—	3	—	159	Alice Holt.*
653	87	—	16	29	—	16	83	884	Allerston.
127	42	1	22	37	3	—	2	234	Ampleforth.
12	—	—	—	—	—	16	4	32	Ampthill.
—	—	—	174	—	—	—	1	175	Arkengarthdale.
—	11	—	—	145	—	46	1	203	Bardney.
3	—	—	1	—	—	—	5	9	Bawtry.
—	—	—	114	—	—	—	6	120	Beddgelert.
100	2	2	—	—	—	25	17	146	Bedbury.*
—	8	—	—	41	—	2	—	51	Bere.*
2	5	29	33	—	—	21	6	96	Bodmin.
22	—	—	12	30	65	10	8	147	Bourne.
8	—	—	1	—	—	—	—	9	Bramshill.
27	508	48	282	—	—	94	104	1,063	Brechfa.
26	64	3	79	—	16	8	3	199	Brecon.
51	6	—	51	—	—	7	15	130	Brendon.
78	—	—	—	—	41	94	11	224	Brighstone.
—	1	1	4	6	15	—	—	27	Bruton.
5	—	—	80	—	—	—	—	85	Brynmawr.
7	—	—	—	—	4	255	12	278	Burton.
9	91	—	83	—	1	15	18	217	Caio.
153	—	—	52	—	—	25	18	248	Cannock Chase.
4	—	—	6	—	—	109	—	119	Challock.
—	—	—	—	—	—	1	—	1	Chepstow.
3	11	—	23	79	6	1	—	123	Chiddingfold.
—	5	—	1	—	—	—	1	7	Chopwell.*
500	—	—	—	—	—	43	184	727	Clipstone.
81	127	—	636	—	—	10	63	917	Clocaenog.
—	—	—	—	—	—	—	—	—	—
16	39	43	503	—	7	27	78	713	Coed-y-Brenin.
—	—	—	—	—	—	118	—	118	Collingbourne.
—	17	—	—	75	31	—	2	125	Combley.
51	164	2	182	—	—	6	55	460	Crychan.
—	—	—	74	—	—	—	1	75	Cwmeinion.
—	—	—	—	—	—	3	11	14	Cynwyd.
—	1	—	180	—	—	4	6	191	Dartmoor.
19	75	—	78	824	11	58	23	1,088	Dean Forest.*
—	—	—	—	—	—	—	—	—	—
2	1	—	—	—	—	—	—	3	Delamere.*
19	94	19	481	—	—	5	46	664	Dovey.
—	—	—	—	—	—	—	—	—	—
15	—	—	—	—	—	3	1	19	Dunwich.
—	—	1	84	—	—	—	4	89	Dyfnant.
22	—	—	6	—	—	—	—	28	Dymock.*
—	—	16	—	—	—	—	—	16	Eggesford.
—	107	—	175	—	—	—	7	289	Ennerdale.

APPENDIX

Plantations. Year ended 30th

Forest.	Area planted (acres).					
	Afforested.		Re-afforested.		Total.	
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Ferndown, Dorset	—	—	—	—	—	—
Friston, Sussex	—	145	—	—	—	145
Glasfynydd, Brecknock	172	—	9	—	181	—
Goodwood, Sussex	—	—	—	93	—	93
Greystoke, Cumberland	200	—	—	—	200	—
Grizedale, Lancashire†	246	6	—	—	246	6
Gwydyr, Caernarvon and Den- bigh.	179	4	26	13	205	17
Hafod Fawr, Merioneth*	—	—	—	—	—	—
Hafren, Montgomery	232	2	—	—	232	2
Haldon, Devon	30	2	4	—	34	2
Halwill, Devon	176	10	—	—	176	10
Hamsterley, Durham	215	—	27	45	242	45
Hardknott, Cumberland	56	4	—	—	56	4
Hartland, Devon	54	1	—	—	54	1
Harwood, Northumberland	108	—	—	—	108	—
Hay, Hereford	91	—	—	—	91	—
Hazelborough, Bucks and North- ampton.*	—	—	20	19	20	19
Herodsfoot, Cornwall	—	—	9	2	9	2
Hope, Derby	—	—	—	—	—	—
Itton, Monmouth	—	46	—	—	—	46
Kerry, Montgomery and Salop	19	—	—	—	19	—
Kershope, Cumberland... ..	768	—	—	—	768	—
Kielder, Northumberland	1,821	7	17	—	1,838	7
King's Forest (The), Suffolk	358	145	30	23	388	168
Langdale, Yorks	129	—	—	—	129	—
Laughton, Lincoln	—	—	—	—	—	—
Llanover, Monmouth	33	1	—	—	33	1
Llantrisant, Glamorgan	1	6	—	—	1	6
Lydford, Devon... ..	25	—	—	—	25	—
Lyminge, Kent	—	1	6	72	6	73
Margam, Glamorgan	—	—	—	—	—	—
Mathrafal, Montgomery	2	—	11	—	13	—
Mendip, Somerset	76	16	—	—	76	16
Michaelston, Glamorgan	250	13	—	—	250	13
Micheldever, Hants	—	—	—	40	—	40
Mortimer, Hereford, Radnor and Salop.	5	—	6	5	11	5
Myherin, Cardigan	168	2	61	5	229	7
Mynydd Ddu, Brecknock and Monmouth.	130	—	4	—	134	—
New Forest, Hants*	—	—	72	12	72	12
Osborne, Isle of Wight	4	14	—	—	4	14
Parkhurst, Isle of Wight*	—	—	1	4	1	4
Pembrey, Carmarthen	43	7	—	—	43	7
Quantocks, Somerset	—	—	—	—	—	—
Radnor, Radnor	91	—	—	—	91	—

* Former Crown woods.

† Formerly known as Hawkshead.

II—contd.

September, 1938—England and Wales—contd.

Species planted, including beating-up (thousands).									Forest.
Scots and Corsican Pines.	Eur. and Jap. Larches.	Douglas Fir.	Norway and Sitka Spruces.	Oak.	Ash.	Beech.	Others	Total.	
70	—	—	1	—	—	—	—	71	Ferndown.
58	—	—	—	—	7	531	1	597	Friston.
—	—	—	302	—	—	—	13	315	Glasfynydd.
—	—	—	—	—	—	209	—	209	Goodwood.
—	8	—	327	—	—	—	—	335	Greystoke.
79	231	—	135	1	—	9	—	455	Grizedale.†
83	144	96	391	2	8	25	74	823	Gwydyr.
—	5	—	96	—	—	—	1	102	Hafod Fawr.*
6	11	—	364	—	—	1	13	395	Hafren.
35	5	14	26	—	—	3	11	94	Haldon.
4	3	—	256	—	—	4	39	306	Halwill.
276	56	—	219	184	—	9	6	750	Hamsterley.
12	31	—	48	—	—	5	—	96	Hardknott.
—	—	—	77	—	—	2	4	83	Hartland.
8	—	—	150	—	—	—	—	158	Harwood.
—	76	—	68	—	—	13	13	170	Hay.
1	33	—	—	28	2	4	1	69	Hazelborough.*
—	—	—	15	—	—	2	—	17	Herodsfoot.
—	—	—	2	—	—	—	17	19	Hope.
—	1	—	—	—	10	47	—	58	Itton.
4	—	—	74	—	—	—	2	80	Kerry.
—	—	—	1,301	—	—	—	3	1,304	Kershope.
99	3	3	2,974	—	—	3	15	3,097	Kielder.
874	35	—	—	114	—	211	78	1,312	King's Forest (The)
228	—	—	54	—	—	—	—	282	Langdale.
3	—	—	3	—	—	—	29	35	Loughton.
73	41	—	7	—	—	24	8	153	Llanover.
—	2	—	25	—	—	2	16	45	Llantrisant.
50	—	—	—	—	—	1	—	51	Lydford.
19	6	—	9	—	4	110	4	152	Lyminge.
73	17	—	67	—	—	3	41	201	Margam.
—	1	15	1	—	—	—	—	17	Mathrafal.
19	63	—	21	—	—	35	—	138	Mendip.
100	98	—	283	—	—	8	36	525	Michaelston.
—	—	—	—	—	3	196	3	202	Micheldever.
40	42	10	—	—	—	21	—	113	Mortimer.
123	59	29	404	—	—	10	10	635	Myherin.
46	41	1	191	—	—	1	2	282	Mynydd Ddu.
174	8	10	94	80	—	7	—	373	New Forest.*
8	—	—	—	—	26	10	—	44	Osborne.
4	1	—	—	10	—	—	—	15	Parkhurst.*
174	—	—	—	—	—	—	16	190	Pembrey.
—	4	—	1	—	—	3	—	8	Quantocks.
—	65	—	71	—	—	11	4	151	Radnor.

APPENDIX

Plantations. Year ended 30th

Forest.	Area planted (acres).					
	Afforested.		Re-afforested.		Total.	
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Redesdale, Northumberland ...	428	—	—	—	428	—
Rendlesham, Suffolk ...	63	6	—	2	63	8
Rheola, Glamorgan ...	312	1	17	—	329	1
Ringwood, Dorset and Hants ...	109	—	81	—	190	—
Rockingham, Northampton ...	—	7	—	19	—	26
Rosedale, Yorks ...	72	—	—	—	72	—
Rothbury, Northumberland ...	—	—	—	—	—	—
St. Gwynno, Glamorgan ...	176	—	—	—	176	—
Salcey, Bucks and Northampton*	—	—	—	10	—	10
Sedbury, Gloucester† ...	—	—	—	—	—	—
Selby, Yorks ...	—	—	—	—	—	—
Sherwood, Nottingham ...	83	10	—	—	83	10
Slaley, Northumberland ...	90	—	—	—	90	—
Swaffham, Norfolk ...	173	8	—	17	173	25
Swanton, Norfolk ...	—	—	8	30	8	30
Tarenig, Cardigan and Mont- gomery.	79	—	—	—	79	—
Thetford Chase, Norfolk and Suffolk.	333	99	32	292	365	391
Thornthwaite, Cumberland ...	24	25	—	—	24	25
Tintern, Monmouth* ...	—	2	22	17	22	19
Usk, Brecknock... ...	7	—	23	—	30	—
Vinehall, Sussex ...	—	—	21	30	21	30
Walcot, Salop ...	—	—	6	—	6	—
Wareham, Dorset ...	216	—	—	—	216	—
Warke, Northumberland ...	840	—	—	—	840	—
Westbury, Hants ...	—	—	—	9	—	9
West Woods, Wilts ...	—	18	—	32	—	50
Wigsley, Lincoln and Notting- ham.	40	—	—	—	40	—
Wilsey Down, Cornwall ...	53	—	—	—	53	—
Wyre, Worcester ...	—	—	—	—	—	—
Yardley Chase, Bedford and Northampton.	—	—	—	43	—	43
Total ...	11,494	780	1,102	1,460	12,596	2,240
By direct sowing (included above)	3	1	—	15	3	16

Plantations. Year ended

Achaglachgach, Argyll ...	116	7	—	—	116	7
Achnashellach, Ross ...	2	—	—	—	2	—
Ae, Forest of, Dumfries ...	207	—	—	—	207	—
Alltcailleach, Aberdeen ...	122	—	—	—	122	—

* Former Crown woods.

† Previously included under Chepstow.

II—contd.

September, 1938—England and Wales—contd.

Species planted, including beating-up (thousands).									Forest.
Scots and Corsican Pines.	Eur. and Jap. Larches.	Douglas Fir.	Norway and Sitka Spruces.	Oak.	Ash.	Beech.	Others	Total.	
40	13	—	717	—	—	—	3	773	Redesdale.
138	—	—	—	—	2	9	37	186	Rendlesham.
224	145	1	367	—	2	3	27	769	Rheola.
423	2	—	—	—	—	—	—	425	Ringwood.
36	—	—	1	156	—	51	6	250	Rockingham.
113	20	—	92	—	2	—	13	240	Rosedale.
11	—	—	—	—	—	—	—	11	Rothbury.
42	40	—	226	—	—	2	8	318	St. Gwynno.
—	—	—	—	16	1	16	1	34	Salcey.*
—	2	—	3	2	—	1	—	8	Sedbury.†
20	—	—	—	—	—	—	—	20	Selby.
188	—	—	—	—	—	6	34	228	Sherwood.
100	—	—	172	—	—	—	3	275	Slaley.
363	—	—	—	1	—	56	15	435	Swaffham.
78	—	—	7	76	7	18	1	187	Swanton.
—	—	—	151	—	—	—	2	153	Tarenig.
1,259	1	50	38	427	20	580	146	2,521	Thetford Chase.
59	3	—	46	3	38	10	6	165	Thornthwaite.
7	51	—	1	59	2	14	1	135	Tintern.*
3	41	—	—	—	—	6	4	54	Usk.
34	16	—	—	—	9	42	—	101	Vinehall.
—	8	—	—	—	—	2	—	10	Walcot.
442	2	—	146	—	—	—	26	616	Wareham.
15	—	—	1,365	—	—	—	—	1,380	Warke.
—	—	—	—	—	1	138	1	140	Westbury.
—	—	—	—	—	—	139	19	158	West Woods.
73	—	—	—	—	—	—	—	73	Wigsley.
—	—	—	140	—	—	—	6	146	Wilsey Down.
6	2	—	3	—	1	5	3	20	Wyre.
104	1	—	9	56	4	19	9	202	Yardley Chase.
8,598	2,916	394	14,976	2,560	349	3,662	1,627	35,082	Total.

30th September, 1938—Scotland.

—	4	26	147	—	—	2	28	207	Achaglachgach.
5	1	—	12	—	—	—	5	23	Achnashellach.
21	39	—	361	—	—	—	10	431	Ae, Forest of.
118	18	—	92	—	—	—	1	229	Alltcaileach.

APPENDIX

Plantations. Year ended 30th

Forest.	Area planted (acres).					
	Afforested.		Re-afforested.		Total.	
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Ardgartan, Argyll	227	3	—	—	227	3
Ardross, Ross	98	—	22	—	120	—
Asknish, Argyll	186	13	—	—	186	13
Auchenroddan, Dumfries	—	—	—	—	—	—
Balblair, Sutherland	11	—	—	—	11	—
Barcardine, Argyll	151	—	—	—	151	—
Benmore, Argyll	146	7	—	—	146	7
Bennan, Kirkcudbright	25	—	—	—	25	—
Bin (The), Aberdeen	—	—	155	—	155	—
Blackcraig, Perth	101	—	—	—	101	—
Blairadam, Fife and Kinross	—	—	71	29	71	29
Borgie, Sutherland	—	—	—	—	—	—
Cairn Edward, Kirkcudbright... ..	98	—	—	—	98	—
Carden, Fife	—	—	37	3	37	3
Carron Valley, Stirling	191	9	—	—	191	9
Change, Ayr	131	—	—	—	131	—
Clashindarroch, Aberdeen	330	—	25	—	355	—
Clunes, Inverness	5	—	—	—	5	—
Corriedoo, Kirkcudbright	56	—	—	—	56	—
Craig-nan-Eun, Inverness	—	—	—	—	—	—
Craigvinean, Perth	102	—	—	—	102	—
Culbin, Moray and Nairn	72	—	—	—	72	—
Culloden, Inverness	—	—	—	—	—	—
Dalbeattie, Kirkcudbright	128	—	—	—	128	—
Deer, Forest of, Aberdeen	—	—	51	—	51	—
Devilla, Fife	—	—	50	—	50	—
Dornoch, Sutherland	—	—	—	—	—	—
Drummond Hill, Perth	24	—	46	—	70	—
Drumtochty, Kincardine	4	—	—	—	4	—
Dundeugh, Kirkcudbright	128	—	—	—	128	—
Durris, Aberdeen and Kincardine	53	—	97	—	150	—
Edensmuir, Fife	—	—	—	—	—	—
Edgarhope, Berwick	18	21	14	1	32	22
Eilanreach, Inverness	—	—	—	—	—	—
Fearnoch, Argyll	80	—	—	—	80	—
Findon, Ross	8	—	—	—	8	—
Fiunary, Argyll	230	5	—	—	230	5
Fleet, Kirkcudbright	16	38	7	23	23	61
Garadhban, Stirling	60	—	33	1	93	1
Glenbranter, Argyll	92	8	—	—	92	8
Glenbrittle, Isle of Skye	134	—	—	—	134	—
Glen Devon, Perth	50	—	—	—	50	—
Glenduror, Argyll	—	—	—	—	—	—
Glenfinart, Argyll	97	1	—	—	97	1
Glengarry, Inverness	147	—	43	—	190	—
Glenhurich, Argyll	98	3	—	—	98	3
Glenloy, Inverness	155	5	—	—	155	5
Glen Righ, Inverness	7	—	—	—	7	—

II—contd.

September, 1938—Scotland—contd.

Species planted, including beating-up (thousands).									Forest.
Scots and Corsican Pines.	Eur. and Jap. Larches.	Douglas Fir.	Norway and Sitka Spruces.	Oak.	Ash.	Beech.	Others.	Total.	
22	7	2	332	—	—	—	43	406	Ardgartan.
152	14	—	32	—	—	—	18	216	Ardross.
7	14	55	229	—	—	4	38	347	Asknish.
4	1	—	6	—	—	—	7	18	Auchenroddan.
8	12	—	7	—	—	—	7	34	Balblair.
47	—	—	220	—	—	4	79	350	Barcaldine.
3	65	—	193	—	13	6	49	329	Benmore.
58	—	—	2	—	—	1	4	65	Bennan.
147	7	—	129	—	—	—	20	303	Bin (The).
—	33	—	160	—	—	—	7	200	Blackcraig.
20	2	—	90	—	—	68	3	183	Blairadam.
—	6	—	15	—	—	—	18	39	Borgie.
50	17	—	113	—	—	1	16	197	Cairn Edward.
2	14	—	54	—	—	—	4	74	Carden.
21	110	—	202	—	—	—	25	358	Carron Valley.
—	—	—	192	—	—	—	—	192	Change.
164	96	—	399	—	—	—	63	722	Clashindarroch.
6	—	—	25	—	—	—	3	34	Clunes.
8	3	—	89	—	—	—	—	100	Corriedoo.
—	2	—	20	—	—	—	4	26	Craig-nan-Eun.
19	66	—	69	—	—	2	—	156	Craigvinean.
185	—	—	13	—	—	—	3	201	Culbin.
—	4	—	—	—	—	—	—	4	Culloden.
24	57	—	142	—	—	1	13	237	Dalbeattie.
1	2	—	102	—	—	—	1	106	Deer, Forest of.
95	5	—	7	—	—	—	—	107	Devilla.
—	—	—	—	—	—	—	2	2	Dornoch.
24	28	—	73	—	—	4	9	138	Drummond Hill.
—	4	—	7	—	—	—	3	14	Drumtochty.
29	9	—	167	—	—	4	—	209	Dundeugh.
—	49	—	198	—	—	2	12	261	Durris.
4	—	—	1	—	—	—	—	5	Edensmuir.
8	14	—	58	58	1	2	19	160	Edgarhope.
—	—	—	16	—	—	—	3	19	Eilanreach.
3	—	—	138	—	—	—	13	154	Fearnoch.
5	16	—	—	—	—	—	10	31	Findon.
19	34	—	399	—	—	—	36	488	Fiunary.
5	47	—	2	209	23	7	32	325	Fleet.
8	21	—	109	—	—	2	4	144	Garadhban.
4	11	—	205	—	—	2	24	246	Glenbranter.
6	24	—	198	—	—	—	25	253	Glenbrittle.
4	—	—	84	—	—	—	—	88	Glen Devon.
3	—	—	37	—	—	2	12	54	Glenduror.
6	22	—	119	—	—	—	7	154	Glenfinart.
17	—	—	429	—	—	—	11	457	Glengarry.
18	16	—	145	—	—	2	18	199	Glenhurich.
12	24	—	276	—	—	2	15	329	Glenloy.
—	1	—	34	—	—	—	2	37	Glen Righ.

APPENDIX

Plantations. Year ended 30th

Forest.	Area planted (acres).					
	Afforested.		Re-afforested.		Total.	
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Glenshiel, Ross	—	—	—	—	—	—
Glentress, Peebles	146	—	—	—	146	—
Glenurquhart, Inverness	25	—	—	—	25	—
Greskine, Dumfries	100	—	—	—	100	—
Guisachan, Inverness	109	2	—	—	109	2
Inchnacardoch, Inverness	5	—	—	—	5	—
Inglismaldie, Kincardine	—	—	47	10	47	10
Inshriach, Inverness	30	—	28	—	58	—
Inverinan, Argyll	166	—	—	—	166	—
Inverinate, Ross	—	—	—	—	—	—
Inverliever, Argyll*	199	1	—	—	199	1
Kemnay, Aberdeen	43	—	9	—	52	—
Kessock, Ross	—	—	—	—	—	—
Kilsture, Wigtown	—	—	8	20	8	20
Kinfauns, Perth... ..	10	25	—	—	10	25
Kirkhill, Aberdeen	—	—	—	—	—	—
Kirroughtree, Kirkcudbright	211	5	—	—	211	5
Knapdale, Argyll	313	7	—	—	313	7
Lael, Ross	72	—	28	—	100	—
Lennox Castle, Stirling	3	—	—	—	3	—
Loch Ard, Perth	405	8	—	—	405	8
Longart, Ross	72	—	—	—	72	—
Lossie, Moray	100	—	—	—	100	—
Midmar, Aberdeen	—	—	—	—	—	—
Millbuie, Ross	433	—	—	—	433	—
Montreatmont, Angus	—	—	51	—	51	—
Nevis, Inverness	127	9	—	—	127	9
Newcastleton, Roxburgh	164	3	—	—	164	3
Newtyle, Moray... ..	—	—	51	—	51	—
North Strome, Ross	46	—	—	—	46	—
Ordiequish, Moray	—	—	—	—	—	—
Port Clair, Inverness	31	—	—	—	31	—
Queen's Forest (The) Inverness	—	—	—	—	—	—
Ratagan, Inverness and Ross	—	—	—	—	—	—
Roseisle, Moray	151	—	—	—	151	—
Salen, Argyll	107	6	—	—	107	6
Scootmore, Moray	93	—	65	—	158	—
Slattadale, Ross	—	—	—	—	—	—
South Laggan, Inverness	7	—	—	—	7	—
South Strome, Ross	25	1	—	—	25	1
Strathyre, Perth	321	2	—	—	321	2
Teindland, Moray	—	—	18	—	18	—
Tentsmuir, Fife	76	—	—	—	76	—
Tinnisburn, Dumfries and Rox- burgh.	98	2	—	—	98	2
Whitehaugh, Aberdeen... ..	154	—	—	—	154	—
Total	7,808	191	956	87	8,764	278

* Former Crown wood.

II—contd.

September, 1938—Scotland—contd.

Species planted, including beating-up (thousands).									Forest.
Scots and Corsican Pines.	Eur. and Jap. Larches.	Douglas Fir.	Norway and Sitka Spruces.	Oak.	Ash.	Beech.	Others	Total.	
—	1	—	11	—	—	—	—	12	Glenshiel.
181	84	—	114	—	—	—	1	380	Glentress.
5	1	—	36	—	—	—	13	55	Glenurquhart.
—	—	—	145	—	—	—	20	165	Greskine.
60	22	5	103	—	—	1	18	209	Guisachan.
17	—	—	17	—	—	—	5	39	Inchnacardoch.
84	—	—	23	47	—	—	18	172	Inglismaldie.
108	2	1	—	—	—	—	3	114	Inshriach.
10	7	2	233	—	—	—	20	272	Inverinan.
8	3	—	30	—	—	—	5	46	Inverinate.
—	26	8	319	—	—	2	5	360	Inverliever.*
40	—	—	69	—	—	3	10	122	Kemnay.
2	—	—	—	—	—	—	—	2	Kessock.
1	18	—	1	103	16	3	9	151	Kilsture.
—	16	—	6	—	—	66	15	103	Kinfauns.
4	—	—	—	—	—	1	1	6	Kirkhill.
147	106	10	171	—	—	4	21	459	Kirroughtree.
—	51	14	425	—	10	—	29	529	Knapdale.
66	88	—	48	—	—	2	24	228	Lael.
1	—	—	18	—	—	—	—	19	Lennox Castle.
245	143	23	540	—	—	2	80	1,033	Loch Ard.
24	27	—	81	—	—	—	13	145	Longart.
204	—	—	—	—	—	—	—	204	Lossie.
—	1	—	8	—	—	—	—	9	Midmar.
505	63	—	52	—	—	—	46	666	Millbuie.
135	1	—	14	—	—	1	1	152	Montreathmont.
5	5	—	276	—	—	3	36	325	Nevis.
8	18	—	340	—	—	—	5	371	Newcastleton.
54	27	—	26	—	—	—	5	112	Newtyle.
18	—	—	84	—	—	—	—	102	North Strome.
5	—	—	—	—	—	—	1	6	Ordiequish.
9	—	—	59	—	—	—	10	78	Port Clair.
35	—	—	—	—	—	—	9	44	Queen's Forest (The).
—	—	—	50	—	—	—	3	53	Ratagan.
312	—	—	—	—	—	—	5	317	Roseisle.
—	8	—	250	—	—	—	23	281	Salen.
159	96	—	74	—	—	1	35	365	Scootmore.
—	10	—	11	—	—	—	2	23	Slattadale.
6	1	—	9	—	—	—	9	25	South Laggan.
2	—	—	54	—	—	—	3	59	South Strome.
101	137	2	265	—	—	1	32	538	Strathyre.
—	7	—	4	—	—	—	33	44	Teindland.
194	—	—	—	—	—	—	—	194	Tentsmuir.
—	—	—	156	—	—	—	4	160	Tinnisburn.
105	95	—	80	—	—	—	2	282	Whitehaugh.
4,222	1,983	148	10,351	417	63	208	1,300	18,692	Total.

APPENDIX

Plantations. Year ended

Forest.			Area planted (acres).					
			Afforested.		Re-afforested.		Total.	
			Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
England and Wales	...	...	11,494	780	1,102	1,460	12,596	2,240
Scotland ...	...	...	7,808	191	956	87	8,764	278
Total	...	...	19,302	971	2,058	1,547	21,360	2,518

II—contd.

30th September, 1938—Summary.

Species planted, including beating-up (thousands).									Forest.
Scots and Corsican Pines.	Eur. and Jap. Larches.	Douglas Fir.	Norway and Sitka Spruces.	Oak.	Ash.	Beech.	Others	Total.	
8,598	2,916	394	14,976	2,560	349	3,662	1,627	35,082	England & Wales. Scotland.
4,222	1,983	148	10,351	417	63	208	1,300	18,692	
12,820	4,899	542	25,327	2,977	412	3,870	2,927	53,774	Total.

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