

FORESTRY COMMISSION

Seventeenth
Annual Report of the
Forestry Commissioners
for the Year ending
September 30th
1936

Ordered, by The House of Commons, to be printed,
25th May, 1937

LONDON

PRINTED AND PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE

To be purchased directly from H.M. STATIONERY OFFICE at the following addresses
Adastral House, Kingsway, London, W.C.2 ; 120 George Street, Edinburgh 2 ;
26 York Street, Manchester 1 ; 1 St. Andrew's Crescent, Cardiff ;
80 Chichester Street, Belfast ;
or through any bookseller

1937

Price 9d. net



CONTENTS.

	PAGE
Forest Policy	3
General ...	3
Finance	5
Commissioners' Estates	5
Land Acquisition	7
Planting Programme	7
<i>State Forests</i>	7
<i>Assistance to Local Authorities and Private Owners</i>	8
Utilisation of Home-grown Timber ...	8
Amenity	9
Private Woodlands ...	9
National Forest Parks ...	9
Unemployment Training Camps	10
Gift to the Commission ...	10
 Operations—Forest Year 1935–1936 ...	11
The Forestry Fund ...	11
General Organisation ...	14
Forestry Operations	14
<i>Supervision</i>	14
<i>Acquisition of Land, Buildings and Standing Timber</i> ...	14
<i>Maps showing Acquisition of Land</i> facing	18
<i>Cultural Operations</i>	21
<i>Plantations</i>	21
<i>Cost of Planting</i>	30
<i>Nurseries</i>	30
<i>Seed Supply</i>	31
<i>Forest Fires</i>	31
Advances for Afforestation Purposes	32
Education	33
<i>Apprentices' Schools</i>	34
<i>Grants to Universities, Colleges, etc.</i> ...	34
<i>Imperial Forestry Institute</i> ...	34
Research and Experiment ...	34
Agency and Advisory Services	36
Special Services... ..	36
<i>Publications</i>	37
<i>Exhibits at Agricultural Shows</i>	37
<i>International Forestry Congress, 1936</i>	37
<i>International Union of Forest Research Organisations</i> ...	37
<i>Consultative Committees</i>	37
Forest Workers' Holdings ...	37
Income	39
 Employment in the Commission's Forests ...	40
 Appendix—Imports of Timber, Wood Manufactures and Pulp of Wood	41

SEVENTEENTH ANNUAL REPORT
of the
FORESTRY COMMISSIONERS
for the
Year ending September 30th, 1936.

Forest Policy.

In the Commissioners' last Annual Report which covered the year ended 30th September, 1935, a statement was given of recent changes in forest policy. There were two main features both of which have entailed increased activity. The first was an increase of the annual grant-in-aid to the Forestry Fund from £450,000 to £500,000 which, with certain assistance towards land acquisition from the Commissioners of Crown Lands, was intended to enable the Forestry Commissioners gradually to increase their normal planting programme from about 20,000 acres to 30,000 acres per annum.

The second feature was the initiation of a scheme of afforestation and forest workers' holdings in connection with the Special Areas of England and Wales. The Special Areas concerned are the mining districts of South Wales; and, in the north of England, Durham and Tyneside, Haltwhistle and West Cumberland. It had been estimated that within about 15 miles of these Special Areas there were 200,000 acres or thereabouts of land which might be acquired for afforestation and that 1,000 forest workers' holdings might usefully be established. As a first instalment covering three years and largely as an experiment, the Commissioners were authorised to acquire and begin to plant 100,000 acres and to establish 500 holdings. The financial provision for the year beginning 1st April, 1936, amounted to £200,000, thereby increasing to £700,000 the total sum voted by Parliament to the Forestry Fund in that year.

These changes were announced late in February 1936, that is to say towards the end of the first half of the year now under review, and all that strictly falls for comment in this Report is confined to seven months' preparatory work which followed the announcement.

The Commissioners have had occasion to comment from time to time on the difficulty of expanding suddenly their afforestation operations. There are three factors involved: provision of suitable small trees for planting, acquisition of land, and finally provision of skilled staff.

The average age of small trees for planting in the forest is three years so that seed sown in the spring of 1936 has little effect on the planting programme until the winter of 1938-39. Steps were taken at once in the spring of 1936 to cultivate a larger area (over 100 acres) of nursery ground and to sow seed additional to normal requirements. The largest new nursery established was at Tair Onen (68 acres) near Cardiff. Some 450 lb. of coniferous seed was sown and 10 million seedlings were lined-out for use in the Special Areas.

The acquisition of land also takes time. The first step is the location and survey (from the point of view of timber production) of suitable blocks. Care and skill are required especially in the vicinity of industrial areas where there is risk of damage from smoke and fumes. Negotiations for purchase or lease follow and when the first two processes of survey and settling terms of acquisition have been concluded there remains the final stage of effecting the legal transfer of the land. Even then the Commissioners are not wholly free to do what they will on the land because it is usually under some form of occupation and fair terms for resumption have to be made with tenants. There is a general consensus of opinion that from the national point of view large areas of land of the types which the Commissioners require for afforestation ought to be used for timber production and further that any additional work which can be brought to the Special Areas ought to be pressed forward. In negotiating for land the Commissioners sometimes find that these important considerations are not fully appreciated either by the owners or by those who object to any alteration of the countryside.

The provision of skilled staff was also a matter of some difficulty. It could not be met merely by transfer of officers from the normal programme to the Special Areas work because both were in process of expansion. Moreover the work is highly specialised and could not be left to men who were unacquainted with the Commissioners' experiences and procedure on the older afforestation units. It was decided to form at once the nucleus of two Divisions, one in South Wales and one in the north of England, with offices at Cardiff and Carlisle respectively, to strengthen the land acquisition staff by the recruitment of young land-agents and the District Officer staff by recruitment of graduates in forestry from the Universities. To ensure a supply of supervisors (foresters and foremen) the existing Apprentices' Schools in the Forest of Dean (Gloucester) and Benmore (Argyll) were filled to capacity. For the work in connection with the formation of forest holdings a senior land-agent was appointed together with clerks of works to supervise building operations.

A re-organisation such as has been described, of necessity increases the strain on the older established officers and the Commissioners desire to place on record their appreciation of the way in which both their outdoor and indoor staffs have risen to the occasion.

Without attempting to anticipate in detail the progress of work which will fall into the next Annual Report it may be stated, so far as the Special Areas are concerned, that up to May 1937 the acquisition of 14,100 acres of plantable land had been completed and the acquisition of an additional 23,600 plantable acres had been approved; 86 forest workers' holdings had been completed or were in course of establishment. No additional planting was possible in the winter of 1936-37 but plans are being made for the planting of 3,350 acres in 1937-38.

FINANCE.

The balance in the Forestry Fund at the commencement of the forest year was £261,670. Receipts from Parliamentary Votes (£700,000) and Forestry Operations (£186,140) amounted to £886,140. Payments amounted to £718,869, so that the balance in the Fund at 30th September, 1936, was £428,941. 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	—	—	851,484	—	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
				Total ...			—	7,447,859	—

COMMISSIONERS' ESTATES.

The following statement presents a general view of the properties under the charge of the Commissioners at 30th September, 1936. It shows the total number of forests, the ways in

which the land is utilised, or proposed to be utilised (in round figures) the main silvicultural operations conducted during the year and some details regarding Holdings and Estate Management.

	<i>England and Wales.</i>	<i>Scotland.</i>	<i>Total Great Britain.</i>
<i>Number of Forests :</i>			
At beginning of year	105	86	191
At end of year ...	109	88	197
<i>Utilisation of Ground (Acres) :</i>			
Forest Land :			
Acquired Plantations ...	58,000	9,000	67,000
Planted by Forestry Commission ...	181,000	108,000	289,000
To be planted ...	126,000	94,000	220,000
	<hr/> 365,000	<hr/> 211,000	<hr/> 576,000
Nurseries ...	600	400	1,000
Agricultural ...	20,000	10,000	30,000
Forest Workers' Holdings ...	10,000	2,000	12,000
U n p l a n t a b l e a n d Miscellaneous ...	109,900	225,600	335,500
	<hr/> 505,500	<hr/> 449,000	<hr/> 954,500
<i>Silvicultural Operations during Year (Acres) :</i>			
Planted and Sown ...	12,422	8,154	20,576
Naturally Regenerated	10	2	12
Underplanted ...	141	19	160
Thinned ...	3,016	564	3,580
Felled ...	490	17	507
<i>Holdings and Estate Manage- ment :</i>			
Number of Forest Workers' Holdings established :			
At beginning of year ...	924	329	1,253
During year ...	10	5	15
	<hr/> 934	<hr/> 334	<hr/> 1,268
Other Tenancies :			
Agricultural Holdings :			
Under £20 p.a. ...	420	260	680
Over £20 p.a. ...	257	160	417
Foresters' Houses ...	104	59	163
Cottages ...	289	173	462
Residential and Sporting Easements, Permissions, Minerals, etc. ...	1,904	105	2,009
Site Rents and Fees ...	—	195	195
	<hr/> 3,255	<hr/> 1,151	<hr/> 4,406

LAND ACQUISITION.

Acquisitions during the year amounted to 25,336 acres net, of which 18,244 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
Total ...	190,326	326,064	516,390	642,100	- 125,710

PLANTING PROGRAMME.

State Forests.

The area planted during the year was 20,576 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*	20,365†	1,302†	21,667	+ 1,667
1935 ...	20,000*	20,773†	719†	21,492	+ 1,492
1936 ...	20,000*	19,495	1,081	20,576	+ 576
Total	—	281,433	15,019	296,452	—

* Minimum area.

† Revised owing to re-survey.

The total area planted by the Commission to 30th September, 1936, was 296,452 acres, of which 276,077 acres consisted of conifers and 20,375 acres of hardwoods. New planting accounted for 281,433 acres and replacements, which included 5,214 acres replanted after damage by fire, for 15,019 acres. Details are given below.

	<i>Conifers.</i>	<i>Hardwoods.</i>	<i>Total.</i>
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
New planting	264,221	17,212	281,433
Replacements	11,856	3,163	15,019
Total	276,077	20,375	296,452

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 111,264 acres, of which 5,361 acres were planted during the year. Particulars of the grants are given on page 33.

	<i>Acres.</i>
First decade:	
1920-29 ...	72,856
Second decade:	
1930 ...	6,501
1931 ...	5,816
1932	5,084
1933	4,574
1934	5,578
1935	5,494
1936	5,361
Total	111,264

Utilisation of Home Grown Timber.

Attention has been given continuously to this important subject both by the Commissioners and by the National Home Grown Timber Council, which has now published its first Annual Report.*

There was a distinct tendency during 1936 for the prices of home-grown timber to rise and the first months of 1937 have seen a spectacular rise in the prices of imported pit-props. Rightly used these increases will afford an excellent opportunity

* *First Annual Report of the National Home Grown Timber Council, 1936.* The Offices of the Council, 11, Victoria St., S.W.1. Price 1s.

to overtake arrears of thinnings in young coniferous plantations many of which have been neglected in recent years. It is to be hoped, on the other hand, that owners of woodlands will not be tempted to clear-fell immature plantations which, in the national interests, should be allowed to grow on to maturity.

Amenity.

The Joint Informal Committee of the Commissioners and the Council for the Preservation of Rural England met from time to time. Perhaps the most important question before them was that of afforestation in the Lake District. As the main result of the discussion the Commissioners have agreed not to acquire land for afforestation within an area embracing some 300 square miles. The report of the Joint Committee has been published as a White Paper.*

Other subjects which have claimed the attention of the Joint Committee are Breckland, Dartmoor and Snowdonia (in collaboration with the Council for the Preservation of Rural Wales) and the more general question of the principles underlying amenity planting.

The Commissioners desire to express their appreciation of the time and trouble which members of the Committee have given to the problems placed before them and of the friendly and helpful spirit in which the discussions have been conducted.

Private Woodlands.

The question of the neglect of private woodlands to which reference has been made in previous Annual Reports has been gradually coming to the fore and although no definite action was taken in the year under review a determined effort is at present being made by the national forestry societies to effect an improvement in the position. It is not proposed to discuss the question in this Report but the Commissioners wish to state that they have it under consideration and desire so far as lies in their power to support the movement.

National Forest Parks.

The scheme for the Argyll National Forest Park to which reference was made in the last Annual Report has now taken definite shape. The Park comprises two closely adjoining blocks in an unspoilt and almost uninhabited district, immediately to the west of Loch Long. The area which is approximately 100 square miles in extent includes within its present boundary

* *Afforestation in the Lake District.* H.M. Stationery Office, 1936, Price 3d.

the hills and glens around Arrochar, Ardgoil, Glenbranter, Glenfinart and Benmore. A public camping ground, car park and buildings for the use of campers have recently been provided at Ardgartan.

The Argyll Park having been found so far to be successful the Commissioners have been encouraged to consider the formation of a somewhat similar area in Wales. A Committee of which Lt.-Col. J. C. Wynne Finch is Chairman is now examining the possibilities of the Commission's areas in Snowdonia as a further National Forest Park.

Unemployment Training Camps.

The Commissioners have continued to co-operate with the Ministry of Labour in providing sites for training camps and work for the men. The work includes fire protection, clearing and road-making. During the year under review there were 15 permanent camps and 15 summer camps with accommodation for 5,350 men. This represents an increase of 350 men on the figures for the previous year. The camps are situated in or near the following forests:—(England and Wales) Allerston, Ampleforth, Bourne, Brechfa, Hamsterley, Kershope, Kielder, Langdale, Mortimer, Rockingham, Rheola, Redesdale, Thetford; (Scotland) Glenbranter, Glenfinart. During the year eight new centres were under construction.

Gift to the Commission.

The Commissioners have gratefully to acknowledge the bequest of Gravetye Manor by the late Mr. William Robinson. The estate extends to over 1,000 acres and contains besides the well-known gardens and mansion house 444 acres of woods and 592 acres of agricultural land.

OPERATIONS—FOREST YEAR 1935-36.

The Forestry Fund.

The position of the Forestry Fund at 30th September, 1936, 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
Total ...	—	7,876,800	2,006,904	9,883,704	9,454,763	—

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 £620,818 to £718,869, an increase of £98,051, mainly under the heads of forestry operations and forest workers' holdings. Receipts were greater by £7,801, and net payments were therefore £90,250 more than in 1935. 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 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.

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

Year ending 30th September.	PAYMENTS.											RECEIPTS. Z. £ (13)	NET PAYMENTS. £ (14)	
	A.	B.	C.	D.	E.	F.	G.	H.	J.	K.	L.			Total.
	Salaries, Wages and Allowances. (1)	Head-quarters Charges. (2)	Assistant Commissioners' Charges. (3)	Divisional Officers' Charges. (4)	Forestry Operations. (5)	Advances for Afforestation Purposes. (6)	Education. (7)	Research and Experiment. (8)	Agency and Advisory Services. (9)	Special Services. (10)	Forest Workers' Holdings. (11)			Total. (12)
First decade : 1920-29 ...	£ 494,157	£ 22,676	£ 30,586	£ 74,434	£ 3,118,837	£ 207,824	£ 76,004	£ 36,927	£ 91,776	£ 23,342	£ 325,455	£ 4,502,018	£ 851,484	£ 3,650,534
Second decade : 1930 ...	£ 63,202	£ 2,571	£ 7,658	£ 9,418	£ 598,119	£ 14,102	£ 9,355	£ 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	£ 842,490	£ 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	£ 618,952	£ 172,953	£ 445,999
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
Total ...	£ 951,589	£ 53,224	£ 60,090	£ 143,780	£ 6,978,941	£ 302,950	£ 125,388	£ 89,171	£ 91,776	£ 30,624	£ 627,230	£ 9,454,763	£ 2,006,904	£ 7,447,859

Table IIa.—Expenditure and Income.

Year ending 30th September.	EXPENDITURE (including Allocation of Column 1).										INCOME.				NET EXPENDITURE. (£14)
	A to D. Superior vision 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	3,512,377	241,094	101,313	79,650	99,233	61,299	389,883	4,485,649	882,108	27,315	6,936	916,359	3,569,090	
Second decade :															
1930 ...	83,414	675,631	16,944	10,208	12,338	1,177	2,097	108,375	826,070	147,994	12,206	406	160,606	666,364	
1931 ...	85,803	701,434	16,573	11,411	12,598	1,167	1,891	109,020	854,094	165,068	13,583	386	179,037	675,057	
1932 ...	80,972	661,180	16,341	8,884	12,326	1,135	2,357	56,357	758,580	144,216	16,511	77	161,104	597,476	
1933 ...	79,182	527,218	14,353	8,226	12,182	944	2,099	19,437	584,459	137,941	17,228	170	155,339	429,120	
1934 ...	79,600	576,353	16,450	8,058	11,301	997	2,453	21,417	637,529	163,132	17,372	518	181,022	456,507	
1935 ...	85,263	566,454	16,639	8,013	13,739	1,201	5,012	21,685	632,743	169,202	17,551	270	187,023	445,720	
1936 ...	92,379	655,041	15,872	9,074	14,132	1,180	5,971	30,073	731,343	183,030	18,064	507	201,601	529,742	
Total ...	1,168,991	7,876,388	354,866	165,187	168,266	107,034	83,179	756,447	9,511,367	1,992,691	140,330	9,270	2,142,291	7,369,076	
Percentage		82.8	3.7	1.7	1.8	1.1	0.9	8.0	100	93.1	6.5	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.

Subheads A to D—General Organisation. Expenditure, £92,579.

Compared with 1935, expenditure rose by £7,316, due to additional staff and office accommodation required for work in connection with the Special Areas, and normal increments. The number of Divisional Officers was increased from 13 to 16, an Estate Officer was appointed and the number of District Officers was raised from 47 to 49.

Subhead E—Forestry Operations. Expenditure, £655,041; Income, £183,030.

Details of expenditure and income are given in Table E. Gross expenditure was £88,587 more than in 1935. The chief increases were £45,370 on acquisition of land, £19,319 on cultural operations and £12,377 on miscellaneous items. Income from forestry operations rose by £13,828.

Overhead Charges, £31,906; Superior Supervision, £37,308, and Local Supervision, £52,257.—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 40. At 30th September the total numbers employed were:—Foresters 175 (Head, 7; Grade I, 35; Grade II, 133) and Foremen 146.

Acquisition of Land, Buildings and Standing Timber.—Expenditure amounted to £115,412, of which £90,334 was in respect of purchases of land including standing timber and buildings, and £25,078 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 1935-36 amounted to 28,957 acres, of which 18,742 acres were classified as plantable. On the other hand disposals and adjustments amounted to 3,621 acres (498 acres plantable).

The average rent or feu duty for land acquired for forestry operations during the year by lease or feu was approximately 2s. 11d. per acre and the average price for such land purchased, approximately £2 15s. 6d. per acre. If the whole outlay in respect of land, buildings, timber, etc., were charged against plantable land the figures would be 2s. 11d. and £4 8s. respectively. Land and buildings for forest workers' holdings are excluded.

Table E.—Forestry Operations.

Year ending 30th September.	EXPENDITURE (Table IIa, Column 2).										INCOME (Table IIa, Column 10).					NET EXPENDITURE. (£) (15)
	Over-head Charges. (1)	Superior Supervision. (2)	Local Supervision. (3)	Acquisition of Land, etc. (4)	Cultural Operations. (5)	Preparation and Sale of Produce. (6)	Roads and Buildings. (7)	Stores and Miscellaneous. (8)	Total. (9)	Sales of Land and Buildings. (10)	Rents and Royalties. (11)	Forest Produce. (12)	Other. (13)	Total. (14)		
First decade : 1920-29 ...	£ 192,997	201,122	174,130	787,309	1,310,801	118,853	115,488	411,677	3,512,577	78,784	274,091	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	20,345	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	46,034	95,215	265,071	30,966	18,629	61,184	576,853	12,258	78,120	55,893	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	397,852	
1936 ...	31,906	37,308	52,257	115,412	300,807	36,123	18,021	63,207	655,041	5,708	83,027	73,111	21,184	183,030	472,011	
Total ...	401,134	426,055	480,972	1,725,208	3,431,000	311,385	266,993	833,641	7,876,388	133,686	799,350	816,225	243,430	1,992,691	5,883,697	
Percentage	5.1	5.4	6.1	21.9	43.6	3.9	3.4	10.6	100	6.7	40.1	41.0	12.2	100		

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, 1936, was 831,760 acres, the corresponding figures in the two previous Annual Reports being 806,424 and 771,046 acres. In addition to these completed acquisitions, entry had been secured to a number of other properties. Details are given in the table below, which also shows the area of "plantable" 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, 1936.*

	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 ...	110,951	25,103	136,054	196,824	63,570	260,394	396,448
Entry secured	2,632	107	2,739	—	—	—	2,739
Total ...	113,583	25,210	138,793	196,824	63,570	260,394	399,187
<i>Scotland :—</i>							
Finally com- pleted ...	76,743	78,818	155,561	129,240	150,511	279,751	435,312
Entry secured	—	—	—	—	—	—	—
Total ...	76,743	78,818	155,561	129,240	150,511	279,751	435,312
<i>Great Britain</i>	190,326	104,028	294,354	326,064	214,081	540,145	834,499

Of the net total area acquired by lease, feu and purchase in Great Britain to 30th September, 516,390 acres were classified at the time of acquisition as plantable and of this area 310,407 acres (60 per cent.) were in England and Wales and 205,983 acres (40 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 thus approximates to 954,500 acres. In round figures the utilisation as at 30th September, 1936, was as shown in the table on page 6.

Forestry Commission Units.

ENGLAND AND WALES.

- | | |
|---|--|
| 1. Chopwell, Durham.* | 33. Llanover, Monmouth. |
| 2. Delamere, Cheshire.* | 34. Chepstow, Glos. and
Monmouth. |
| 3. Hafod Fawr, Merioneth.* | 35. Bodmin, Cornwall. |
| 4. Dean Forest, Glos., Hereford
and Monmouth.* | 36. Halwill, Devon. |
| 5. Tintern, Monmouth.* | 37. Haldon, Devon. |
| 6. Dymock, Glos. and
Hereford.* | 38. Eggesford, Devon. . |
| 7. Salcey, Bucks. and
Northants.* | 39. Brendon, Somerset. † |
| 8. Hazelborough, Bucks. and
Northants.* | 40. Quantocks, Somerset. |
| 9. Alice Holt, Hants.* | 41. Wareham, Dorset. |
| 10. Woolmer, Hants.* | 42. Bramshill, Berks. and
Hants. |
| 11. Bere, Hants.* | 43. Chiddingfold, Surrey and
Sussex. |
| 12. New Forest, Hants.* | 44. Ennerdale, Cumberland. |
| 13. Parkhurst, Isle of Wight.* | 45. Clipstone, Derby and Notts. |
| 14. Bedgebury, Kent and
Sussex.* | 46. Beddgelert, Caernarvon. |
| 15. Rothbury, Northumberland. | 47. Cynwyd, Merioneth. |
| 16. Thornthwaite, Cumberland. | 48. Dovey, Merioneth and
Montgomery. |
| 17. Allerston, Yorks. | 49. Radnor, Radnor. |
| 18. Selby, Yorks. | 50. Lyminge, Kent. |
| 19. Gwydyr, Caernarvon and
Denbigh. | 51. Kielder, Northumberland. |
| 20. Coed-y-Brenin, Merioneth. † | 52. Haugh, Hereford. |
| 21. Cannock Chase, Stafford. | 53. Wyre, Worcester. |
| 22. Rockingham, Northants. | 54. Brecon, Brecknock. |
| 23. Swaffham, Norfolk. | 55. Brechfa, Carmarthen. |
| 24. Thetford Chase, Norfolk
and Suffolk. | 56. Ringwood, Dorset and
Hants. |
| 25. Rendlesham, Suffolk. | 57. Bourne, Lincoln and
Rutland. |
| 26. Ampthill, Bedford. | 58. Hamsterley, Durham. |
| 27. Mortimer, Hereford, Radnor
and Salop. | 59. Hope, Derby. |
| 28. Walcot, Salop. | 60. Loughton, Lincoln. |
| 29. Kerry, Montgomery and
Salop. | 61. Friston, Sussex. |
| 30. Rheola, Glamorgan. | 62. Micheldever, Hants. |
| 31. Margam, Glamorgan. | 63. Ferndown, Dorset. |
| 32. Llantrisant, Glamorgan. | 64. Wilsey Down, Cornwall. |
| | 65. Glasfynydd, Brecknock. |
| | 66. Rosedale, Yorks. |

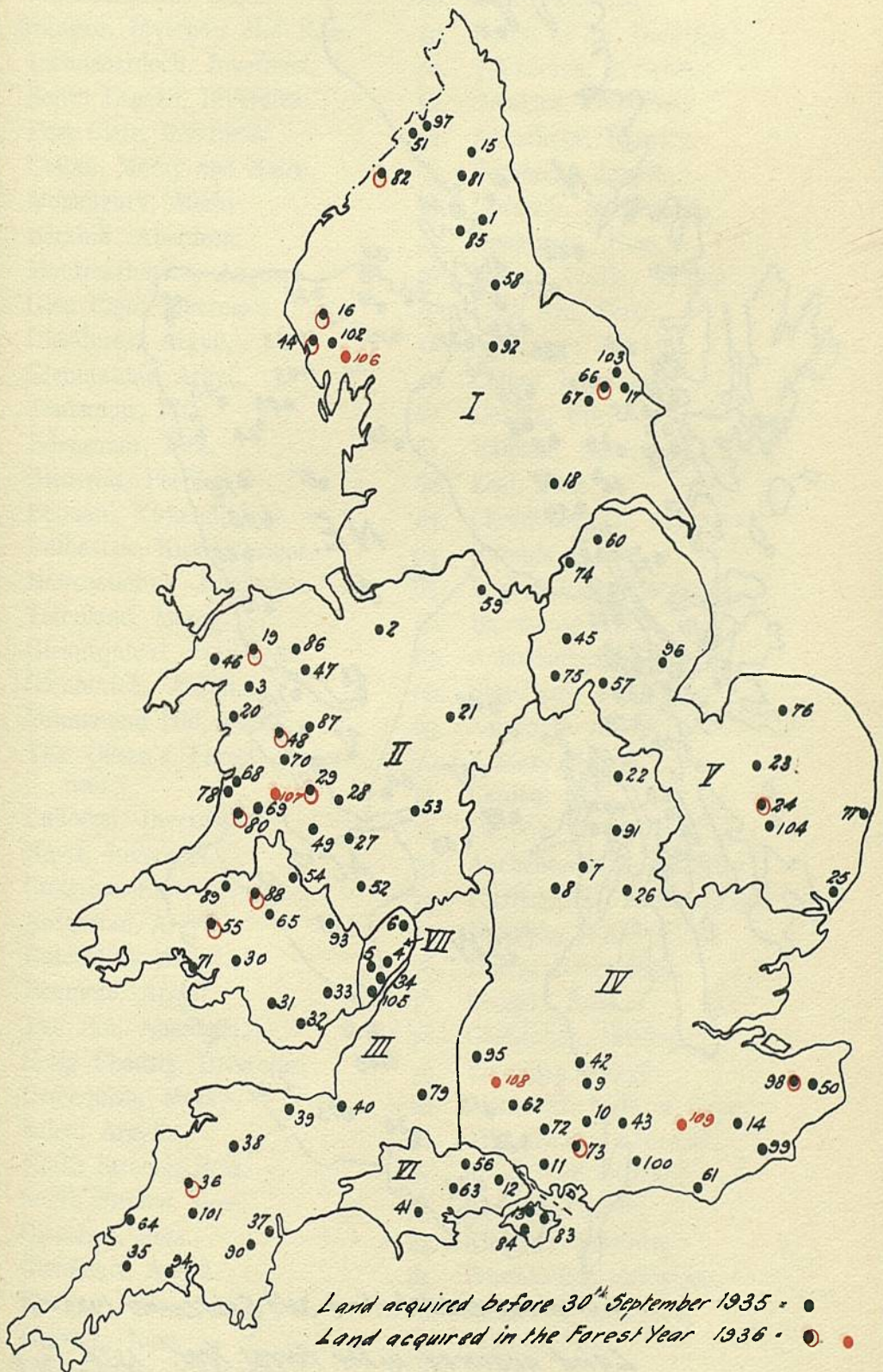
* Former Crown woods.

† Formerly known as Vaughan.

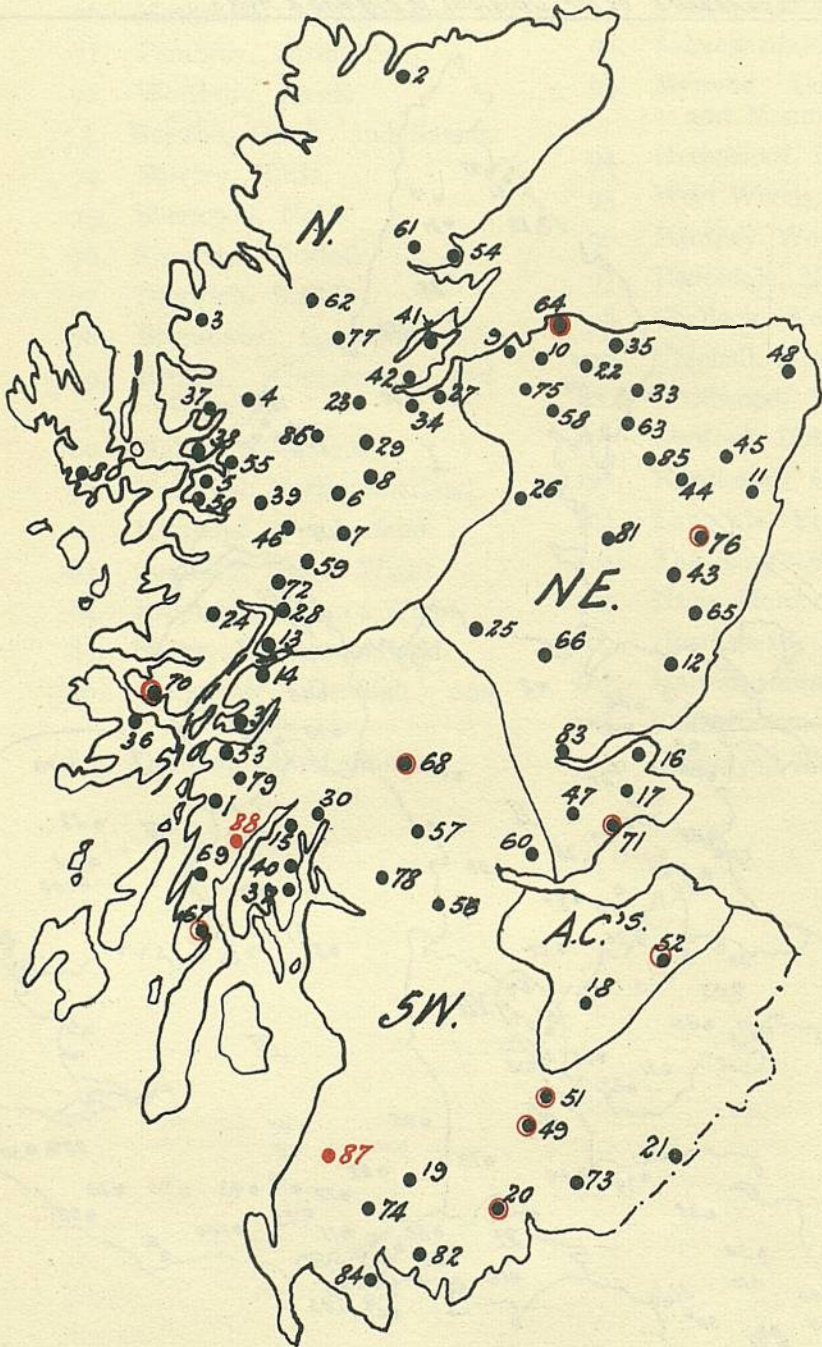
‡ Formerly known as Exmoor.

- | | |
|--|--|
| 67. Ampleforth, Yorks. | 88. Crychan, Carmarthen. |
| 68. Cwmeinion, Cardigan. | 89. Caio, Carmarthen. |
| 69. Tarenig, Cardigan and
Montgomery. | 90. Dartmoor, Devon. |
| 70. Mathrafal, Montgomery. | 91. Yardley Chase, Bedford
and Northants. |
| 71. Pembrey, Carmarthen. | 92. Arkengarthdale, Yorks. |
| 72. Westbury, Hants. | 93. Mynydd Ddu, Brecknock
and Monmouth. |
| 73. Buriton, Hants. and Sussex. | 94. Herodsfoot, Cornwall. |
| 74. Bawtry, Notts. | 95. West Woods, Wilts. |
| 75. Sherwood, Notts. | 96. Bardney Woods, Lincoln. |
| 76. Swanton, Norfolk. | 97. Redesdale, Northumberland. |
| 77. Dunwich, Suffolk. | 98. Challock, Kent. |
| 78. Brynmawr, Cardigan. | 99. Vinehall, Sussex. |
| 79. Bruton, Somerset and
Wilts. | 100. Goodwood, Sussex. |
| 80. Myherin, Cardigan. | 101. Lydford, Devon. |
| 81. Harwood, Northumberland. | 102. Hardknott, Cumberland. |
| 82. Kershope, Cumberland. | 103. Langdale, Yorks. |
| 83. Combley, Isle of Wight. | 104. The King's Forest, Suffolk. |
| 84. Brighstone, Isle of Wight. | 105. Itton, Monmouth. |
| 85. Slaley, Northumberland. | 106. Hawkshead, Lancs. |
| 86. Clocaenog, Denbigh and
Merioneth. | 107. Hafren, Montgomery. |
| 87. Dyfnant, Montgomery. | 108. Collingbourne, Wilts. |
| | 109. Gravetye, Sussex. |

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



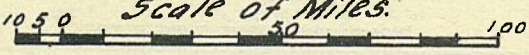
Sketch map showing the location of units and the boundaries of the Divisions in Scotland.



Land acquired before 30th September 1935 - •

Land acquired in the Forest Year 1936 •●

Scale of Miles.



SCOTLAND.

- | | |
|--------------------------------------|----------------------------------|
| 1. Inverliever, Argyll.* | 45. Kemnay, Aberdeen. |
| 2. Borgie, Sutherland. | 46. Glengarry, Inverness. |
| 3. Slattadale, Ross. | 47. Blairadam, Fife and Kinross. |
| 4. Achnashellach, Ross. | 48. Deer, Aberdeen. |
| 5. Ratagan, Inverness and Ross. | 49. Forest of Ae, Dumfries. |
| 6. Inchinacardoch, Inverness. | 50. Eilanreach, Inverness. |
| 7. South Laggan, Inverness. | 51. Greskine, Dumfries. |
| 8. Port Clair, Inverness. | 52. Edgarhope, Berwick. |
| 9. Culbin, Moray and Nairn. | 53. Fearnoch, Argyll. |
| 10. Monaughty, Moray. | 54. Dornoch, Sutherland. |
| 11. Kirkhill, Aberdeen. | 55. Inverinate, Ross. |
| 12. Montreatmont, Angus. | 56. Lennox Castle, Stirling. |
| 13. Glen Righ, Inverness. | 57. Loch Ard, Perth. |
| 14. Glenduror, Argyll. | 58. Scootmore, Moray. |
| 15. Glenbranter, Argyll. | 59. Clunes, Inverness. |
| 16. Tentsmuir, Fife. | 60. Devilla, Fife. |
| 17. Edensmuir, Fife. | 61. Balblair, Sutherland. |
| 18. Glentress, Peebles. | 62. Lael, Ross. |
| 19. Bennan, Kirkcudbright. | 63. Clashindarroch, Aberdeen. |
| 20. Dalbeattie, Kirkcudbright. | 64. Roseisle, Moray. |
| 21. Newcastleton, Roxburgh. | 65. Inglismaldie, Kincardine. |
| 22. Teindland, Moray. | 66. Blackcraig, Perth. |
| 23. Glenurquhart, Inverness. | 67. Achaglachgach, Argyll. |
| 24. Glenhurich, Argyll. | 68. Strathyre, Perth. ‡ |
| 25. Drummond Hill, Perth. | 69. Knapdale, Argyll. |
| 26. The Queen's Forest, Inverness. † | 70. Fiunary, Argyll. |
| 27. Culloden, Inverness. | 71. Carden, Fife. |
| 28. Nevis, Inverness. | 72. Glenloy, Inverness. |
| 29. Craig-nan-Eun, Inverness. | 73. Auchenroddan, Dumfries. |
| 30. Ardgartan, Argyll. | 74. Kirroughtree, Kirkcudbright. |
| 31. Barcaldine, Argyll. | 75. Newtyle, Moray. |
| 32. Benmore, Argyll. | 76. Durris, Kincardine. |
| 33. The Bin, Aberdeen. | 77. Longart, Ross. |
| 34. Craig Phadrig, Inverness. | 78. Garadhban, Stirling. |
| 35. Ordiequish, Moray. | 79. Inverinan, Argyll. |
| 36. Salen, Argyll. | 80. Glenbrittle, Isle of Skye. |
| 37. North Strome, Ross. | 81. Alltcaileach, Aberdeen. |
| 38. South Strome, Ross. | 82. Fleet, Kirkcudbright. |
| 39. Glenshiel, Ross. | 83. Kinfauns, Perth. |
| 40. Glenfinart, Argyll. | 84. Kilsture, Wigtown. |
| 41. Findon, Ross. | 85. Whitehaugh, Aberdeen. |
| 42. Kessock, Ross. | 86. Guisachan, Inverness. |
| 43. Drumtochty, Kincardine. | 87. Changue, Ayr. |
| 44. Midmar, Aberdeen. | 88. Asknish, Argyll. |

* Former Crown wood.

† Formerly known as Glenmore.

‡ Formerly known as Tulloch.

Table E 5.—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	210,507	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	36,800	29,203	30,804	43,073	20,913	35,617	206,132	58,939	265,071
1935 ...	8,124	41,604	29,537	31,974	46,695	21,532	35,233	214,719	66,769	281,488
1936 ...	10,120	40,014	31,205	30,512	52,787	20,748	37,602	223,048	77,759	300,807
Total ...	240,521	327,867	428,644	486,146	481,479	208,413	315,985	2,489,055	941,945	3,431,000
Percentage	7.0	9.6	12.5	14.2	14.0	6.1	9.2	72.6	27.4	100

Cultural Operations.—Expenditure amounted to £300,807, details of which are given in Table E5. Plantations accounted for £223,048 and nurseries £77,759.

Plantations.—The total area planted or sown during the year was 20,576 acres, of which 18,525 acres were placed under conifers and 2,051 acres under broadleaved species. Included in the above are 453 acres re-afforested in the former Crown woods and 628 acres replanted after damage by fire.

The total addition to the woodland area of Great Britain as a result of the Commission's operations, was 16,031 acres. In forming plantations and beating-up previous years' plantations 50,702,000 trees were used, of which 43 per cent. were Norway and Sitka spruces; 28 per cent. Scots and Corsican pines; 11 per cent. European and Japanese larches; 2 per cent. Douglas fir, and 12 per cent. broadleaved species.

An area of 160 acres of existing woods was underplanted, necessitating the use of 136,000 plants.

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

Silvicultural Operations.

Division.	Planted and Sown.	Naturally Regenerated.	Under-planted.	Thinned.	Felled.
	Acres.	Acres.	Acres.	Acres.	Acres.
I	3,378	7	—	212	12
II	2,953	—	24	365	65
III	2,306	—	—	49	24
IV	967	—	61	185	105
V	1,831	—	—	378	43
VI	576	3	56	601	32
VII	411	—	—	1,226	209
England and Wales	12,422	10	141	3,016	490
N.	1,724	2	—	75	—
N.E.... ..	2,083	—	1	258	15
S.W.... ..	4,086	—	—	142	—
A.C.	261	—	18	89	2
Scotland	8,154	2	19	564	17
Total	20,576	12	160	3,580	507

Forest.	Area planted (acres).					
	Afforested.		Re-afforested.		Total.	
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Alice Holt, Hants*	—	—	1	2	1	2
Allerston, Yorks	112	6	—	8	112	14
Ampleforth, Yorks	29	—	31	12	60	12
Amphill, Bedford	—	—	—	—	—	—
Arkengarthdale, Yorks	96	2	—	—	96	2
Bardney Woods, Lincoln	—	—	—	49	—	49
Bawtry, Notts	—	—	—	—	—	—
Beddgelert, Caernarvon	38	—	20	—	58	—
Bedgebury, Kent and Sussex*	—	—	26	9	26	9
Bere, Hants*	—	—	7	—	7	—
Bodmin, Cornwall	—	—	46	1	46	1
Bourne, Lincoln and Rutland	—	135	—	15	—	150
Bramshill, Berks and Hants	—	—	—	—	—	—
Brechfa, Carmarthen	460	11	17	22	477	33
Brecon, Brecknock	104	2	—	—	104	2
Brendon, Somerset†	30	—	16	6	46	6
Brightstone, Isle of Wight	7	33	—	—	7	33
Bruton, Somerset and Wilts	—	—	7	12	7	12
Brynmawr, Cardigan	54	—	—	—	54	—
Buriton, Hants and Sussex	—	54	—	—	—	54
Caio, Carmarthen	90	—	—	—	90	—
Cannock Chase, Stafford	—	—	—	—	—	—
Chepstow, Gloucester and Mon- mouth.	—	—	—	—	—	—
Chiddingfold, Surrey and Sussex	—	—	8	16	8	16
Chopwell, Durham*	—	—	—	—	—	—
Clipstone, Derby and Notts	26	5	37	15	63	20
Cloacaog, Denbigh and Merioneth.	360	—	76	—	436	—
Coed-y-Brenin, Merioneth†	333	—	254	3	587	3
Combley, Isle of Wight	—	—	13	28	13	28
Crychan, Carmarthen	239	—	—	—	239	—
Cwmeinion, Cardigan	45	—	—	—	45	—
Cynwyd, Merioneth	—	—	22	—	22	—
Dartmoor, Devon	101	3	—	—	101	3
Dean Forest, Glos., Hereford and Monmouth.*	16	35	86	158	102	193
Delamere, Cheshire*	—	—	24	—	24	—
Dovey, Merioneth and Mont- gomery.	241	—	43	—	284	—
Dunwich, Suffolk	—	—	—	—	—	—
Dynant, Montgomery	43	—	—	—	43	—
Dymock, Gloucester and Here- ford.*	13	5	—	—	13	5
Eggesford, Devon	—	—	10	—	10	—
Ennerdale, Cumberland	139	8	—	—	139	8
Ferndown, Dorset	—	—	—	—	—	—
Friston, Sussex	—	55	—	—	—	55
Glasfynydd, Brecknock	—	—	—	—	—	—
Goodwood, Sussex	—	68	—	—	—	68
Gwydyr, Caernarvon and Den- bigh.	484	5	10	—	494	5
Hafod Fawr, Merioneth*	6	—	—	—	6	—

* Former Crown woods.

† Formerly known

September, 1936—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.	
6	2	—	2	9	—	—	1	20	Alice Holt.*
620	94	—	59	14	2	—	227	1,016	Allerston.
86	30	—	18	46	3	—	9	192	Ampleforth.
3	—	—	—	—	—	—	1	4	Amphill.
—	—	—	209	—	—	—	3	212	Arkengarthdale.
—	—	—	2	93	50	—	—	145	Bardney Woods.
22	—	—	11	8	—	—	—	41	Bawtry.
—	—	—	118	—	—	—	4	122	Beddgelert.
48	12	—	2	—	4	12	25	103	Bedbury.*
2	28	—	—	7	—	2	—	39	Bere.*
34	29	8	15	—	—	3	7	96	Bodmin.
60	—	—	9	274	83	—	—	366	Bourne.
41	174	112	3	—	—	—	—	63	Bramhill.
13	48	—	535	—	—	22	53	937	Brechfa.
63	9	—	169	—	—	—	19	249	Brecon.
61	—	22	9	—	—	12	19	134	Brendon.†
—	2	—	—	—	11	100	14	186	Brightstone.
—	61	—	10	—	18	—	—	30	Bruton.
—	—	—	23	—	—	—	4	88	Brynmawr.
—	—	—	—	—	—	169	17	186	Buriton.
47	36	19	126	—	—	1	18	247	Caio.
578	5	—	70	—	—	44	161	858	Cannock Chase.
2	4	—	5	—	—	4	—	15	Chepstow.
1	—	—	49	47	15	—	—	112	Chiddingfold.
—	11	—	—	—	—	—	—	11	Chopwell.*
444	—	—	—	—	12	9	59	524	Clipstone.
79	166	—	556	—	—	3	3	807	Clocaenog.
34	50	233	819	—	—	7	38	1,181	Coed-y-Bren-
—	15	—	—	67	12	7	1	102	Combley.
310	72	24	90	—	—	—	8	504	Crychan.
—	—	—	98	—	—	—	—	98	Cwmeinion.
13	2	34	4	—	—	—	1	54	Cynwyd.
—	—	—	219	—	—	5	3	227	Dartmoor.
42	135	—	104	284	2	88	48	703	Dean Forest.*
38	2	—	9	—	—	—	1	50	Delamere.*
6	176	92	375	—	—	—	18	667	Dovey.
48	—	—	—	2	—	—	—	50	Dunwich.
—	2	—	115	—	—	—	2	119	Dyfnant.
—	13	—	5	16	—	—	18	52	Dymock.*
1	2	13	3	—	—	—	1	20	Eggesford.
—	88	—	205	—	—	—	1	294	Ennerdale.
146	—	—	9	—	—	—	1	156	Ferndown.
15	—	—	—	—	—	140	13	168	Friston.
—	—	—	37	—	—	—	—	37	Glasfynydd.
—	—	—	—	—	—	216	—	216	Goodwood.
76	211	84	690	30	—	11	32	1,134	Gwydyr.
—	—	—	14	—	—	—	—	14	Hafod Fawr.*

as Exmoor.

† Formerly known as Vaughan.

Forest.	Area planted (acres).					
	Afforested.		Re-afforested.		Total.	
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Haldon, Devon	1	—	51	—	52	—
Halwill, Devon	174	—	—	—	174	—
Hamsterley, Durham	—	—	19	10	19	10
Hardknott, Cumberland	28	—	—	—	28	—
Harwood, Northumberland	100	—	—	—	100	—
Haugh, Hereford	—	—	—	10	—	10
Hazelborough, Bucks and Northants.*	—	—	—	26	—	26
Herodsfoot, Cornwall	—	—	8	1	8	1
Hope, Derby	—	—	—	—	—	—
Itton, Monmouth	—	81	—	—	—	81
Kerry, Montgomery and Salop... ..	—	—	21	—	21	—
Kershope, Cumberland	498	—	—	—	498	—
Kielder, Northumberland	1,658	1	—	—	1,658	1
King's Forest (The), Suffolk	562	30	30	11	592	41
Laughton, Lincoln	—	—	—	—	—	—
Llanover, Monmouth	84	—	—	—	84	—
Llantrisant, Glamorgan	—	—	—	—	—	—
Lydford, Devon... ..	47	4	—	—	47	4
Lyminge, Kent	—	—	4	34	4	34
Margam, Glamorgan	—	—	—	—	—	—
Mathrafal, Montgomery	—	—	22	—	22	—
Micheldever, Hants	—	—	—	108	—	108
Mortimer, Hereford, Radnor and Salop.	68	10	58	—	126	10
Myherin, Cardigan	252	—	55	3	307	3
Mynydd Ddu, Brecknock and Monmouth.	170	—	—	—	170	—
New Forest, Hants*	—	—	72	18	72	18
Parkhurst, Isle of Wight*	—	—	7	10	7	10
Pembrey, Carmarthen	90	—	—	—	90	—
Quantocks, Somerset	—	—	5	—	5	—
Radnor, Radnor	59	—	7	—	66	—
Redesdale, Northumberland	445	—	—	—	445	—
Rendlesham, Suffolk	13	5	—	—	13	5
Rheola, Glamorgan	206	1	52	16	258	17
Ringwood, Dorset and Hants	213	—	—	—	213	—
Rockingham, Northants	—	9	—	155	—	164
Rosedale, Yorks	56	4	—	—	56	4
Rothbury, Northumberland	—	—	—	—	—	—
Salcey, Bucks and Northants*	—	—	—	33	—	33
Selby, Yorks	—	—	—	—	—	—
Sherwood, Notts	—	—	15	2	15	2
Slaley, Northumberland	94	—	—	—	94	—
Swoffham, Norfolk	105	16	—	—	105	16
Swanton, Norfolk	98	2	—	—	98	2
Tarenig, Cardigan and Mont- gomery.	43	—	—	—	43	—
Thetford Chase, Norfolk and Suffolk.	498	24	47	52	545	76
Thorntwaite, Cumberland	21	1	—	—	21	1
Tintern, Monmouth*	3	3	1	10	4	13
Walcot, Salop	—	—	—	—	—	—
Wareham, Dorset	89	3	—	—	89	3
Westbury, Hants	—	—	—	30	—	30
West Woods, Wilts	—	9	—	117	—	126

* Former

September, 1936—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.	
52	17	48	34	—	—	—	1	152	Haldon.
15	2	—	346	—	—	—	—	363	Halwill.
19	39	—	30	40	2	—	2	132	Hamsterley.
8	4	—	39	—	—	—	—	51	Hardknott.
1	—	—	159	—	—	—	1	161	Harwood.
—	—	—	3	8	2	16	—	29	Haugh.
—	20	—	3	128	—	2	—	153	Hazelborough.*
—	—	7	5	—	—	—	1	13	Herodsfoot.
—	—	—	—	—	—	—	45	45	Hope.
—	16	—	—	—	21	39	—	76	Itton.
—	9	6	63	—	—	—	5	83	Kerry.
—	—	—	904	—	—	—	—	904	Kershope.
64	26	32	2,621	—	1	—	32	2,776	Kielder.
1,166	—	—	—	13	—	15	45	1,239	King's Forest (The).
134	—	—	10	—	—	—	49	193	Laughton.
85	87	—	48	—	—	20	7	247	Llanover.
3	8	—	64	—	—	4	5	84	Llantrisant.
86	3	2	1	—	—	6	—	98	Lydford.
7	32	5	7	—	9	90	18	168	Lyminge.
5	13	—	61	—	—	3	8	90	Margam.
—	11	15	4	—	—	—	—	30	Mathrafal.
—	—	—	—	—	—	352	—	352	Micheldever.
20	204	7	31	—	21	17	—	300	Mortimer.
39	168	25	459	—	2	1	9	703	Myherin.
60	136	12	63	—	—	5	40	316	Mynydd Ddu.
120	6	7	119	89	2	14	5	362	New Forest.*
17	1	—	6	27	—	—	5	56	Parkhurst.*
289	—	—	10	—	—	3	7	309	Pembrey.
5	4	10	7	—	—	1	—	27	Quantocks.
—	18	1	146	—	—	17	—	182	Radnor.
138	13	—	624	—	—	—	2	777	Redesdale.
174	1	—	3	18	2	—	7	205	Rendlesham.
118	209	—	528	—	18	14	25	912	Rheola.
751	3	—	39	—	—	—	—	793	Ringwood.
5	18	—	43	619	6	6	6	703	Rockingham.
153	9	—	49	—	8	—	2	221	Rosedale.
63	1	—	—	—	—	—	19	83	Rothbury.
—	—	—	—	103	—	5	—	108	Salcey.*
40	—	—	—	—	—	—	1	41	Selby.
111	—	—	—	—	—	—	3	114	Sherwood.
223	—	—	23	—	—	—	2	248	Slaley.
235	—	11	—	—	—	—	12	258	Swaffham.
336	1	9	7	30	1	—	—	384	Swanton.
4	—	—	200	—	—	—	—	204	Tarenig.
2,795	62	223	—	206	8	22	89	3,405	Thetford Chase
16	13	—	34	1	8	—	1	73	Thornthwaite.
41	40	1	21	35	3	13	5	159	Tintern.*
—	12	10	—	—	1	7	—	30	Walcot.
486	—	1	81	—	—	1	21	590	Wareham.
—	—	—	—	—	—	90	—	90	Westbury.
—	—	—	—	—	10	198	32	240	West Woods.

Crown woods.

Plantations. Year ended 30th

Forest.	Area planted (acres).					
	Afforested.		Re-afforested.		Total.	
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Wilsley Down, Cornwall ...	51	—	—	—	51	—
Wyre, Worcester ...	—	—	22	22	22	22
Yardley Chase, Bedford and Northants.	—	—	16	180	16	180
Total ...	8,792	630	1,266	1,204	10,058	1,834
By direct sowing (included above)	3	36	—	35	3	71

Plantations. Year ended

Achaglachgach, Argyll ...	56	—	—	—	56	—
Achnashellach, Ross ...	—	—	—	—	—	—
Ae, Forest of, Dumfries ...	188	—	—	—	188	—
Alltcailleach, Aberdeen... ..	81	—	69	—	150	—
Ardgartan, Argyll ...	276	—	—	—	276	—
Auchenroddan, Dumfries ...	26	—	—	—	26	—
Balblair, Sutherland ...	—	—	52	—	52	—
Barcaldine, Argyll ...	153	—	—	—	153	—
Benmore, Argyll ...	119	1	—	—	119	1
Bennan, Kirkcudbright ...	102	—	—	—	102	—
Bin (The), Aberdeen ...	—	—	200	—	200	—
Blackcraig, Perth ...	98	—	—	—	98	—
Blairadam, Fife and Kinross ...	—	—	30	33	30	33
Borgie, Sutherland ...	—	—	—	—	—	—
Carden, Fife ...	30	—	—	—	30	—
Changue, Ayr ...	68	—	—	—	68	—
Clashindarroch, Aberdeen ...	385	—	64	—	449	—
Clunes, Inverness ...	75	—	—	—	75	—
Craig-nan-Eun, Inverness ...	4	—	—	—	4	—
Culbin, Moray and Nairn ...	—	—	—	—	—	—
Culloden, Inverness ...	—	—	—	—	—	—
Dalbeattie, Kirkcudbright ...	116	—	—	—	116	—
Deer, Aberdeen ...	—	—	90	—	90	—
Devilla, Fife ...	27	—	24	—	51	—
Dornoch, Sutherland ...	—	—	—	—	—	—
Drummond Hill, Perth ...	23	—	53	—	76	—
Drumtochty, Kincardine ...	—	—	108	—	108	—
Durris, Kincardine ...	94	—	—	—	94	—
Edensmuir, Fife ...	2	—	9	—	11	—
Edgarhope, Berwick ...	48	—	—	—	48	—
Eilanreach, Inverness ...	—	—	—	—	—	—
Fearnoch, Argyll ...	78	2	—	—	78	2
Findon, Ross ...	—	—	48	—	48	—
Fiunary, Argyll ...	246	—	—	—	246	—
Fleet, Kirkcudbright ...	49	73	7	30	56	103
Garadhban, Stirling ...	27	—	50	3	77	3
Glenbranter, Argyll ...	103	—	—	—	103	—
Glenbrittle, Isle of Skye ...	102	—	—	—	102	—
Glenduror, Argyll ...	66	—	—	—	66	—
Glenfinart, Argyll ...	138	—	—	—	138	—
Glengarry, Inverness ...	43	—	153	—	196	—
Glenhurich, Argyll ...	195	2	—	—	195	2
Glenloy, Inverness ...	149	1	—	—	149	1

September, 1936—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.	
—	2	—	119	—	—	—	1	122	Wilsey Down. Wyre. Yardley Chase.
18	97	—	28	—	6	41	8	198	
24	102	—	6	480	—	1	16	629	
10,865	2,886	1,073	11,844	2,694	343	1,858	1,367	32,930	Total.

30th September, 1936—Scotland.

—	8	13	78	—	—	—	2	101	Achaglachgach.
—	1	—	8	—	—	—	11	20	Achnashellach.
3	4	—	346	—	—	1	5	359	Ae, Forest of.
237	43	—	17	—	—	—	5	302	Alltcaileach.
64	25	7	433	—	—	—	35	564	Ardgartan.
54	—	—	12	—	—	1	—	67	Aucheproddan.
70	34	—	9	—	—	1	6	120	Balblair.
73	16	2	183	—	—	—	38	312	Barcaldine.
7	51	—	317	—	—	—	50	425	Benmore.
15	—	—	205	—	—	—	—	220	Bennan.
46	21	—	308	—	—	4	8	387	Bin (The).
—	69	—	96	—	—	—	65	230	Blackcraig.
16	5	—	30	—	2	73	12	138	Blairadam.
—	5	—	19	—	—	—	17	41	Borgie.
19	—	—	44	—	—	1	—	64	Carden.
—	26	—	103	—	—	—	—	129	Changue.
146	485	—	174	—	—	3	29	837	Clashindarroch.
40	11	—	123	—	—	4	9	187	Clunes.
7	—	—	20	—	—	—	—	27	Craig-nan-Eun.
217	1	—	—	—	—	—	49	267	Culbin.
5	3	—	2	—	—	1	—	11	Culloden.
24	39	—	193	—	—	—	—	256	Dalbeattie.
13	4	—	233	—	—	—	3	253	Deer.
88	19	—	5	—	—	—	—	112	Devilla.
—	—	—	2	—	—	—	5	7	Dornoch.
30	59	—	40	—	—	2	—	131	Drummond Hill.
18	84	—	49	—	—	2	24	177	Drumtochty.
—	30	—	125	—	—	1	1	157	Durris.
14	—	—	9	—	—	—	—	23	Edensmuir.
49	59	—	—	—	—	—	—	108	Edgarhope.
4	—	—	8	—	—	3	1	16	Eilanreach.
30	—	—	100	—	—	—	4	134	Fearnoch.
106	8	—	1	—	—	1	4	120	Findon.
6	82	—	437	—	—	2	9	536	Fiunary.
1	92	—	14	157	56	1	44	365	Fleet.
34	19	3	81	—	—	—	14	151	Garadhban.
—	—	—	217	—	—	—	18	235	Glenbranter.
23	20	—	164	—	—	—	13	220	Glenbrittle.
8	26	—	95	—	—	—	20	149	Glenduror.
17	38	5	181	—	—	—	2	243	Glenfinart.
5	23	12	333	—	—	3	21	397	Glangarry.
30	29	—	321	—	—	—	5	385	Glenhurich.
16	2	—	267	—	—	—	8	293	Glenloy.

Plantations. Year ended

Forest.	Area planted (acres).					
	Afforested.		Re-afforested.		Total.	
	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.	Coni- fers.	Broad- leaved.
Glen Righ, Inverness	—	—	—	—	—	—
Glenshiel, Ross	—	—	—	—	—	—
Glentress, Peebles	212	—	—	1	212	1
Glenurquhart, Inverness	4	—	—	—	4	—
Greskine, Dumfries	16	3	—	—	16	3
Inchnacardoch, Inverness	5	—	—	—	5	—
Inglismaldie, Kincardine	—	—	51	—	51	—
Inverinan, Argyll	179	1	—	—	179	1
Inverinate, Ross	3	—	—	—	3	—
Inverliever, Argyll*	—	—	148	—	148	—
Kemnay, Aberdeen	6	—	—	—	6	—
Kessock, Ross	—	—	—	—	—	—
Kilsture, Wigtown	—	—	10	34	10	34
Kinfauns, Perth... ..	8	—	—	—	8	—
Kirkhill, Aberdeen	—	—	—	—	—	—
Kirroughtree, Kirkcudbright	227	8	—	—	227	8
Knapdale, Argyll	322	5	—	—	322	5
Lael, Ross	113	—	—	—	113	—
Lennox Castle, Stirling... ..	49	—	—	—	49	—
Loch Ard, Perth	607	5	—	—	607	5
Longart, Ross	62	—	—	—	62	—
Midmar, Aberdeen	—	—	45	—	45	—
Monaughty, Moray	—	—	—	—	—	—
Montreathmont, Angus	53	—	—	—	53	—
Nevis, Inverness	207	4	—	—	207	4
Newcastleton, Roxburgh	174	—	—	—	174	—
Newtyle, Moray	—	—	50	—	50	—
North Strome, Ross	13	—	—	—	13	—
Ordiequish, Moray	—	—	—	—	—	—
Port Clair, Inverness	64	—	—	—	64	—
Queen's Forest (The), Inverness†	—	—	—	—	—	—
Ratagan, Inverness and Ross	5	—	—	—	5	—
Roseisle, Moray	151	—	—	—	151	—
Salen, Argyll	90	—	—	—	90	—
Scootmore, Moray	103	—	63	—	166	—
Slattadale, Ross... ..	—	—	—	—	—	—
South Laggan, Inverness	6	—	—	—	6	—
South Strome, Ross	77	1	—	—	77	1
Strathyre, Perth†	416	2	—	—	416	2
Teindland, Moray	—	—	22	—	22	—
Tentsmuir, Fife	87	—	—	—	87	—
Whitehaugh, Aberdeen... ..	75	—	—	—	75	—
Total	6,501	108	1,346	101	7,847	209
By direct sowing (included above)	—	18	—	5	—	23

Plantations. Year ended

England and Wales	8,792	630	1,266	1,204	10,058	1,834
Scotland	6,501	108	1,346	101	7,847	209
Total	15,293	738	2,612	1,305	17,905	2,043

* Former Crown wood.

† Formerly known

30th September, 1936—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.	
12	—	—	20	—	—	—	1	33	Glen Righ.
—	—	—	35	—	—	—	10	45	Glenshiel.
151	184	—	124	—	2	3	4	468	Glentress.
4	4	2	31	—	—	—	17	58	Glenurquhart.
13	1	—	20	—	—	—	11	45	Greskine.
23	—	2	15	—	—	—	14	54	Inchnacardoch.
18	—	—	64	—	—	—	14	96	Inglismaldie.
—	9	15	280	—	—	1	2	307	Inverinain.
5	10	—	11	—	—	—	7	33	Inverinate.
—	31	—	217	—	—	—	—	248	Inverliever.*
25	—	—	11	—	—	8	—	44	Kemnay.
7	1	—	1	—	—	—	—	9	Kessock.
—	12	—	8	65	18	—	—	116	Kilsture.
—	—	—	20	—	—	4	—	20	Kinfauns.
2	2	—	1	—	—	1	—	15	Kirkhill.
53	121	—	317	—	—	12	—	508	Kirroughtree.
—	11	53	507	—	5	—	2	592	Knapdale.
51	89	1	58	—	—	—	—	33	Lael.
2	—	—	79	—	—	—	—	10	Lennox Castle.
188	333	17	708	—	—	—	—	28	Loch Ard.
30	17	—	66	—	—	—	4	117	Longart.
—	25	—	50	—	—	4	—	1	Midmar.
6	—	—	1	—	—	—	—	3	Monaughty.
111	1	—	13	—	—	—	—	47	Montreathmont.
32	33	—	328	—	—	—	—	8	Nevis.
20	2	—	493	—	—	—	—	2	Newcastleton.
60	12	—	24	—	—	—	—	12	Newtyle.
—	—	—	31	—	—	1	—	1	North Strome.
2	—	—	1	—	—	—	—	3	Ordiequish.
37	12	—	100	—	—	—	—	18	Port Clair.
164	—	—	51	—	—	—	—	—	Queen's Forest (The).†
—	4	—	33	—	—	—	9	46	Ratagan.
345	—	—	—	—	—	—	9	354	Roseisle.
—	71	—	150	—	—	2	5	228	Salen.
132	37	—	173	—	—	2	24	368	Scootmore.
—	6	—	26	—	—	—	4	36	Slattadale.
—	—	—	20	—	—	—	3	23	South Laggan.
4	2	—	151	—	—	—	—	2	South Strome.
141	85	—	473	—	—	3	17	719	Strathyre.‡
2	8	—	11	—	—	—	40	61	Teindland.
209	—	—	—	—	—	—	50	259	Tentsmuir.
—	63	—	65	—	—	1	—	129	Whitehaugh.
3,384	2,627	132	10,189	222	88	148	982	17,772	Total.

30th September, 1936—Summary.

10,865	2,886	1,073	11,844	2,694	343	1,858	1,367	32,930	England & Wales.
3,384	2,627	132	10,189	222	88	148	982	17,772	Scotland.
14,249	5,513	1,205	22,033	2,916	431	2,006	2,349	50,702	Total.

as Glenmore.

‡ Formerly known as Tulloch.

Cost of Planting.—The outlay per acre on labour and material on the areas planted between 1919 and 1936 was as follows:—

	£	s.	d.
England and Wales	9	11	9
Scotland	9	16	10
Great Britain	9	13	8

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, 1936, was 946 acres stocked with 216 million seedlings and 75 million transplants. Comparative figures for the three years 1934-36 are given in the following table:—

Nurseries.

Year ending 30th Sept.	Country.	Seed Sown (lb.).			Stock of Plants at 30th September (thousands).						Area (Acres).
		Coniferous.	Broad-leaved.	Total.	Transplants.			Seedlings.			
					Coniferous.	Broad-leaved.	Total.	Coniferous.	Broad-leaved.	Total.	
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
1935 ...	England and Wales	4,414	54,046	58,460	42,400	7,026	49,426	66,660	11,021	77,681	559
	Scotland ...	3,653	3,436	7,089	23,726	831	24,557	65,061	1,554	66,615	338
	Total ...	8,067	57,482	65,549	66,126	7,857	73,983	131,721	12,575	144,296	897
1934 ...	England and Wales	5,727	147,382	153,109	48,675	4,314	52,989	71,715	17,322	89,037	491
	Scotland ...	3,067	3,523	6,590	32,759	472	33,231	50,494	1,389	51,883	311
	Total ...	8,794	150,905	159,699	81,434	4,786	86,220	122,209	18,711	140,920	802

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.
	Acres.	Acres.	Acres.	Acres.	Acres.
I	38·8	46·7	31·6	19·8	136·9
II	30	28·1	12·1	12·2	82·4
III	12·8	28·2	58·5	10·4	109·9
IV	15·3	21·9	9·4	7·7	54·3
V	39·1	67·5	16·4	18	141
VI	15·4	9·5	9·6	2·7	37·2
VII	12	12·2	8·8	5	38
England and Wales	163·4	214·1	146·4	75·8	599·7
N.	22·4	21·8	22·7	15·8	82·7
N.E.... ..	26·2	38·8	14·5	24·2	103·7
S.W.... ..	56·5	46·2	47·5	9·2	159·4
Scotland	105·1	106·8	84·7	49·2	345·8
Total	268·5	320·9	231·1	125	945·5

Seed Supply.—The 1935 crop of Sitka spruce was abundant in Canada but disappointing in the United States of America. Only small supplies of Douglas fir seed were available. The Japanese larch crop failed and, on the Continent, very little seed of European larch was obtainable. Corsican pine and Norway spruce yielded good crops. Oak was again reported to be plentiful but there was a shortage of beech.

As regards home-collected seed, in England and Wales there was a good supply of Scots pine and sufficient seed of oak, chestnut and sycamore. The beech crop, although moderate, did not yield enough seed to meet requirements and ash was scarce. In Scotland, Scots pine and European larch seeds were plentiful but the supply of oak and beech was inadequate.

The quantity of seed sold during the year amounted to 534 lb.

The Commissioners have to express their thanks for gifts of seed from the Forest Authorities of Argentina, Canada, Chile, Germany, New Zealand, Portugal and Rumania.

Forest Fires.—Possibly in consequence of the higher rainfall during the year there was some diminution in the number of forest fires, which amounted to 407 compared with 487 in 1935

and 500 in 1934. The damage was, however, greater, the value being assessed at £20,170 compared with £4,090 in 1935 and £12,166 in 1934. The chief damage in 1936 was done in one week in February and, moreover, occurred in parts of the country, such as Snowdonia and Nevis, where the normal rainfall is very high. Comparative figures for the five years 1932 to 1936 are given below.

	1932.	1933.	1934.	1935.	1936.
Number of fires ...	315	621	500	487	407
Area burnt (acres)...	262	1,297	741	270	1,563
Damage valued at...	£2,813	£19,040	£12,166	£4,090	£20,170

In addition three fires caused damage to buildings amounting to £2.

Claims amounting to £2,187 have been lodged by the Commissioners in respect of the damage done during the year.

The following table gives the causes of fires in 1936 and it will be seen that 174 (43 per cent.) originated in sparks from railway engines and 51 (12 per cent.) were caused by the general public. Incendiarism apart, carelessness is the factor most difficult to guard against.

<i>Origin.</i>	<i>Number of fires.</i>	<i>Percentage of total number.</i>
Railways ...	174	43
General public:		
From public roads, etc.	29	7
Other ...	22	5
Adjoining land	39	10
Road engines	13	3
Incendiarism	8	2
Commission's employees...	5	1
Other	3	1
Unknown ...	114	28
Totals	407	100

Subhead F—Advances for Afforestation Purposes. Expenditure, £15,872.

Grants to private individuals and local authorities for planting amounted to £10,923, advances in respect of a proceeds-sharing scheme to £1,738 and overhead and supervisory charges to £3,211.

The grants were as follows:—

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

(2) *Hardwoods*.—For every acre planted 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 ...	228	108	336
Planting conifers ...	Acres. 2,294	Acres. 2,039	Acres. 4,333
Planting hardwoods ...	786	26	812

The area planted under the proceeds-sharing scheme was 216 acres.

Subhead G—Education. Expenditure, £9,074.

Details of expenditure are given in Table G.

Table G.—Education.

Year ending 30th September.	EXPENDITURE (Table IIa, Column 4).							INCOME.	NET EXPENDITURE.
	Superior Supervision and Over-head Charges.	Apprentices' Schools.				Grants to Institutions.	Total.		
		Salaries and Expenses of Instructors.	Purchase and Rent of Land and Buildings.	Allowances to Apprentices.	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
Total	20,235	22,276	10,278	33,233	20,561	58,604	165,187	2,869	162,318
Percentage ...	12·2	13·5	6·2	20·1	12·5	35·5	100		

Apprentices' Schools: Expenditure, £3,737.—Forty-one forest apprentices underwent courses of instruction at Parkend (Forest of Dean) and Benmore (Argyllshire). Of those who completed the two years' course 20 were granted certificates of proficiency.

Grants to Universities, Colleges, etc.: Expenditure, £1,930.—Grants were made during the year to the following:—Oxford University; Cambridge University; University College of North Wales, Bangor; Armstrong College, Newcastle-on-Tyne; Aberdeen University; Edinburgh and East of Scotland College of Agriculture; Royal Scottish Forestry Society.

The number of students studying forestry at the Universities was 71; 26 forestry degrees were granted, and three candidates obtained diplomas.

Imperial Forestry Institute: Expenditure, £2,000.—The annual grant to the Imperial Forestry Institute from the Forestry Fund was continued. Eighteen students attended for the whole or part of the year, comprising 8 post-graduate probationers from the Colonial Services, 9 forest officers on leave (India 2, Colonial Services 7) and 1 private student.

Subhead H—Research and Experiment.

Expenditure: Gross, £14,132; Net, £13,728.

Details of expenditure are given in Table H.

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	1,646	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	3,165	13,739	143	13,596
1936	1,444	5,416	4,123	3,149	14,132	404	13,728
Total	22,611	74,822	50,000	20,833	168,266	2,528	165,738
Percentage ...	13·4	44·5	29·7	12·4	100		

Production.—Fifty sample plots were remeasured during the year; of these 30 were in England and Wales and 20 in Scotland. One new plot was established bringing the total number at the end of the year up to 212.

Nursery and Plantation Experiments.—Nursery experiments have included stratification of seed, manurial treatment of nursery soils including the testing of various forms of dried peat, season of sowing, and the raising of walnut and poplar.

A promising experimental plantation at a high elevation near Beddgelert was badly damaged by an avalanche but sufficient plants remain to test the possibility of planting up to 1,800 ft. in this locality. Plots established during the year dealt with problems such as:—intensity of draining on peaty ground, comparison of basic slag with mineral phosphate, treatment of peat-covered knolls in the west of Scotland, establishment of walnut, hoeing of ash and sycamore. An investigation was conducted on certain plantations formed in industrial areas in South Wales and the Midlands; this was with special reference to the question of smoke damage. Experiments have also been carried out on the method and height of pruning.

Entomology and Mycology.—Useful progress was made with the pine shoot beetle investigation, in collaboration with the Imperial Institute of Entomology. The work on chafer control was also continued: this is proving a difficult problem, a solution to which is still somewhat distant.

The discovery, by Dr. A. E. Cameron of Edinburgh University, of the galls of *Adelges (Chermes) cooleyi* on Sitka spruce in Scotland has led to an investigation which has cleared up some of the points in the life-history of this insect. So far the gall form has not been found in England or Wales where the insect continues to develop on the Douglas fir alone. It does not appear likely that this chermes will be a serious pest on Sitka spruce.

The progress of the elm disease has been kept under observation and contact maintained with continental centres investigating the disease. A supposedly immune strain of elm, which has been raised in Holland, was imported for inoculation work and for propagation.

Progress has been made with a survey of coniferous plantations to determine the incidence of heart-rot.

Botany and Soils.—Dr. M. C. Rayner has made further progress with investigations on the effect of organic composts upon the growth of seedlings at Allerston and Wareham Forests. The work is throwing light on the problem of tree nutrition and tends to emphasise the importance of biological as distinct from purely chemical factors.

Dr. E. V. Laing of Aberdeen University has been studying the root development of European larch, while his colleague Dr. G. K. Fraser is continuing his researches on moorland humus types in eastern Scotland. The soils over a large part of the Forests of Clashindarroch and The Bin have been surveyed by Dr. A. Muir of the Macaulay Institute for Soil Research at Aberdeen.

Voles.—Assistance has been given to the Bureau of Animal Population, Oxford University, for an investigation on the ecology and diseases of the field vole.

Advisory Committee on Forest Research.—The Committee held its ninth meeting at Fort Augustus in Inverness-shire; plantation experiments at Glen Righ and Inchnacardoch Forests were inspected.

Utilisation.—The Forest Products Research Laboratory have collaborated with the Commissioners in investigations on pruning and on the extraction and utilisation of thinnings.

Subhead J—Agency and Advisory Services. Expenditure: Gross, £1,180; Net, £1,077.

No direct expenditure was incurred under this head. The sum of £1,180 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, £5,971.

Details of expenditure are given in Table K.

Table K.—Special Services.

Year ending 30th September.	EXPENDITURE (Table IIa, Column 7).						IN-COME.	NET EXPENDITURE.
	Superior Supervision and Overhead Charges.	Consultative Committees' Expenses.	Publications.	Special Enquiries.	Relief of Unemployment.	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
1935... ..	3,750	10	196	1,056	—	5,012	4	5,008
1936... ..	2,869	7	4	3,091	—	5,971	—	5,971
Total ...	41,377	665	2,620	18,689	19,828	83,179	367	82,812
Percentage	49·8	0·8	3·1	22·5	23·8	100		

Publications.—The following publications were issued during the year:—Bulletin No. 16 (*Studies on the Pine Shoot Moth*); Bulletin No. 17 (*The Cultivation of the Cricket Bat Willow*); *Sixteenth Annual Report of the Forestry Commissioners* (being the report for the year ending 30th September, 1935); *Report on the Demand for Timber in Wood-Turning in Great Britain* (Utilisation Series No. 3), and *Afforestation in the Lake District* (report by the Joint Informal Committee of the Forestry Commission and the Council for the Preservation of Rural England). In addition, Leaflets Nos. 9 (*Forest Fires*) and 21 (*Leaf-cast of Larch*) were revised and reprinted.

Exhibits at Agricultural Shows.—Forestry exhibits were sent by the Commissioners to the shows of the Bath and West Society at Neath and the Highland and Agricultural Society at Melrose.

International Forestry Congress, 1936.—The Forestry Commission was represented at the second International Forestry Congress held at Budapest from 10th to 14th September, 1936.

International Union of Forest Research Organisations.—The ninth Congress of the International Union was held in Hungary in August, 1936, when representatives of the Forestry Commission attended.

Consultative Committees.—The advice of the English and Welsh Committees was obtained as to considerations to be kept in view as regards forestry and timber utilisation, in drawing up regional planning schemes. As a result a few alterations were made in the Ministry of Health Model Clauses for use in the preparation of schemes.

The Welsh Committee met once during the year and the English Committee twice. Colonel L. Ropner retired from the latter Committee on appointment as Forestry Commissioner.

Subhead L.—Forest Workers' Holdings. Expenditure, £30,073; Income, £18,064.

Total expenditure was £8,388 greater than in 1935, the increase being mainly in respect of purchase of land and buildings. Details are given in Table L.

During the year further holdings were completed, raising the number from 1,253 to 1,268. The average cost of establishing holdings is £493, of which land accounts for £70, and cost of buildings, drainage, water supply, etc., £423.

Table L.—*Forest Workers' Holdings.*

Year ending 30th September.	EXPENDITURE (Table Ia, Column 8).										INCOME (Table IIa, Column II).			NET EXPEN- DITURE. (12)
	Superior Super- vision and Overhead Charges. (1)	Purchase and Rent of Land and Buildings. (2)	Buildings.			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	37,302	3,882	17,561	4,120	389,883	26,261	1,254	27,515	26,261	1,254	362,368
Second decade :														
1930	11,196	34,410	43,126	19,932	2,536	5,902	473	108,575	12,119	87	12,206	12,119	87	96,369
1931	11,054	17,437	54,095	15,435	3,528	6,713	758	109,020	13,568	15	13,583	13,568	15	95,437
1932	9,157	3,974	26,635	4,352	6,696	4,511	1,032	56,357	16,781	30	16,811	16,781	30	39,546
1933	7,632	(cr.) 1,101*	4,375	3,166	3,424	1,004	937	19,437	17,145	83	17,228	17,145	83	2,209
1934	7,480	4,546	2,064	2,285	2,926	1,238	878	21,417	17,278	94	17,372	17,278	94	4,045
1935	6,937	4,060	2,617	2,502	4,110	874	585	21,685	17,497	54	17,551	17,497	54	4,134
1936	8,382	10,374	4,352	1,145	4,103	582	1,075	30,073	18,018	46	18,064	18,018	46	12,009
Total	97,732	177,640	329,448	72,119	31,265	38,385	9,858	756,447	138,667	1,663	140,330	138,667	1,663	616,117
Percentage	12.9	23.5	43.6	9.5	4.1	5.1	1.3	100	98.9	1.1	100	98.9	1.1	100

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

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	1,203
Total number of residents on the holdings	4,897
Average annual rent of house, outbuildings and land	£14 10s.
Average area (including outrun) ...	11·4 acres.
Head of live stock:—	
Horses	422
Cows	1,072
Other cattle (including calves)	1,190
Sheep	4,975
Pigs	1,988
Poultry	52,136
Miscellaneous (including goats)	1,069
Estimated value of the live stock ...	£45,386

Subhead Z—Income, £201,601.

Total income was £14,578 greater than in 1935. Rents and royalties increased by £1,405, sales of forest produce by £9,999 and other receipts by £3,110. 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	160,606
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
Total	133,686	799,350	816,225	243,430	1,992,691	140,330	9,270	2,142,291
Percentage	6·2	37·3	38·1	11·4	93·0	6·6	0·4	100

Rents and royalties include £19,545 from the Forest of Dean mines; "other" income includes sales of live stock £11,408 and miscellaneous estate, farm and forest receipts £6,589.

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

(Signed) R. L. ROBINSON (*Chairman*).
 F. D. ACLAND.
 G. L. COURTHOPE.
 D. R. GRENFELL.
 A. RODGER.
 L. ROPNER.
 W. R. SMITH.
 S. STRANG STEEL.
 JOHN SUTHERLAND.

A. G. HERBERT,
Secretary,
 9, Savile Row,
 London, W.1.

APPENDIX.

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.

The quantity of unmanufactured timber imported during 1936 was 12,013,000 loads, compared with 10,761,000 loads in 1935, an increase of 1,252,000 loads (12 per cent.). The value was £43,569,000 or £8,053,000 (23 per cent.) more than in the previous year. Sawn softwoods and hardwoods rose by 1,108,000 loads (20 per cent.) and 83,000 loads (12 per cent.) respectively, the increase in values being £5,181,000 (30 per cent.) and £992,000 (17 per cent.). Imports of planed and dressed timber were greater by 212,000 loads (21 per cent.), the rise in value amounting to £1,141,000 (28 per cent.), but those of pitprops, 2,315,000 loads valued at £3,509,000, remained practically stationary.

The value of wood manufactures was £7,463,000, an increase of £1,290,000 (21 per cent.) over 1935. Plywood rose by £627,000 (18 per cent.) to £4,127,000 and builders' woodwork by £414,000 (41 per cent.) to £1,429,000.

Imports of pulp of wood at 2,384,000 tons are little altered from those of 1935 but the value was greater at £10,099,000 (10 per cent.).

Imports of Timber, Wood Manufactures and Pulp of Wood.

Description.	Quantities (thousands).				Value (thousands).			
	Average 1909-13.	Average 1914-18.	1935.	1936.	Average 1909-13.	Average 1914-18.	1935.	1936.
TIMBER.								
Hewn-hard—	Loads.*	Loads.*	Loads.*	Loads.*	£	£	£	£
Mahogany ...	—	—	29	31	—	—	253	279
Walnut ...	—	—	2	—	—	—	18	—
Oak ...	—	—	2	—	—	—	20	—
Teak ...	—	—	1	—	—	—	18	—
Other sorts ...	—	—	42	—	—	—	304	—
Hewn-soft (fir, pine, spruce, etc.).	542	129	368	273	1,353	583	535	585
Sawn-hard—								
Mahogany ...	—	—	17	22	—	—	257	329
Walnut ...	—	—	6	8	—	—	103	146
Oak ...	—	—	229	258	—	—	2,036	2,300
Teak ...	—	—	38	55	—	—	672	1,048
Other sorts ...	—	—	410	440	—	—	2,677	2,914
Sawn-soft, other than planed or dressed.	—	—	5,558	6,666	—	—	17,380	22,561
Planed or dressed—								
Hard ...	—	—	81	81	—	—	535	576
Soft ...	—	—	950	1,162	—	—	3,539	4,639
Other descriptions—								
Pitprops ...	2,944	1,673	2,370	2,315†	3,510	4,425	3,608	3,509
Staves ...	161	71	61	62	795	648	340	491
Sleepers ...	—	130	270	284	—	602	852	906
Veneers and panel wood.	—	—	13	13	—	—	766	852
Telegraph poles	—	—	55	—	—	—	217	—
Boxboards ...	—	—	246	295	—	—	1,134	1,997
Not elsewhere specified.	6,557†	3,550†	13	—	21,903†	24,362†	252	—
Total unmanu- factured timber.	10,204	5,553	10,761	12,013	27,561	30,620	35,516	43,569
WOOD MANUFACTURES.								
Furniture and cabinet ware.	—	—	—	—	416	115	409	464
Builders' wood- work (window frames, doors, etc.).	—	—	—	—	180	62	1,015	1,429
Plywood ...	—	—	—	—	—	—	3,500	4,127
Domestic wood- work (bread platters, trays, etc.).	—	—	—	—	—	—	180	190
Tool handles ...	—	—	—	—	—	—	102	—
Not elsewhere specified.	—	—	—	—	2,099	1,821	967	1,253
Total manufac- tured timber.	—	—	—	—	2,695	1,998	6,173	7,463
PULP OF WOOD.								
Pulp of wood ...	Tons. 859	Tons. 682	Tons. 2,221	Tons. 2,384	4,058	7,915	9,144	10,099

* 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.

‡ Importers' returns to H.M. Customs and Excise were not rendered on a uniform basis in 1936. In that year a change in the unit was made from loads to fathoms.

