FORESTRY COMMISSION

HISTORY

OF

EGGESFORD

FOREST

SW(E) CONSERVANCY

FORESTRY COMMISSION

HISTORY

of

EGGESFORD FOREST

1919 - 1951

SOUTH WEST (ENGLAND) CONSERVANCY

HISTORY OF EGGESFORD FOREST

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CHAIRMAN'S COMMENTS

My first recorded inspection was with Lord Clinton (Chairman) in August 1929, but I have known the forest almost since its beginning. It was, as noted in the history, the scene of the first Commission planting.

The woods when taken over were in something of a mess as the recent war fellings had not been cleared up. Costs of preparation of ground were consequently very high. Silviculturally the area seemed to present no very great problems and such major mistakes as were made in the choice of species were on a small scale.

The natural ash in Plashdown has been interesting. I think that with earlier and freer thinning, combined with green pruning, better results could have been obtained, but we had little experience in growing ash. The spotting in of beech at wide intervals was obviously a mistake.

A point of interest was the recovery of Douglas fir in one or two compartments after the removal of ash coppice which had been left too long.

Once in canopy the crops generally developed well and I never had any doubt that with timely and systematic thinning high production would be secured.

The occurrence of Chermes cooleyii on Douglas fir, resulting in check in height growth and subsequent recovery, ought to be recorded in a little detail. Mr. Broadwood made a report from which the necessary information can be obtained.

I was surprised to read that there are some trees (presumably planted by the Commission) over 100 ft. in height although (see Commissioners' 15th Annual Report, page 26) the tallest tree measured in any Commission plantation was a Sitka spruce 41 ft. high at 15 years (in Plashdown).

R.

8/3/52

HISTORY OF EGGESFORD FOREST

GENERAL DESCRIPTION OF THE FOREST

Situation

Eggesford Forest is situated in North Devon about half way between Exeter and Barnstaple, and lies mostly in the valley of the River Taw.

The name originated from the old Eggesford Estate, belonging to Lord Portsmouth, of which Eggesford Forest was then a part.

Area and Utilisation

The total area of Eggesford Forest is 880.5 acres.

The woodlands were previously hardwood areas belonging to the late Earl of Portsmouth and were used to provide timber for estate repairs and buildings, and also for sporting. The hardwoods were felled during the 1914-18 war, and they contained some first-class ash timber.

Bithefin, prior to being planted, was used for rough grazing.

TABLE I

From	By	Date	Plantations Acquired	Plantable, excl. Col.4.	Nurseries	Agricultural	FWH	Unplantable, excl. Col.4.	Other Land		Total
									Building Sites	Old Nursery and area of Forest Buildings etc.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
C. R. Claridge	Conveyance	29.3.20		77			4.0				81.0
W. Western	Conveyance	7.9.20		8					1.5		9.5
Messrs. Bartlett, Bayliss & Co.	Conveyance	31.3.23	2.	579				1	1.		583.0
W. Western	Conveyance	25.2.25					9.5			2.	11.5
H. V. Robins	Conveyance	25.3.25	20.	34							54.0
W. E. Short	Conveyance	25.3.25	5.	32							37.0
G. H. Callard	Conveyance	2.12.38	5.	99.5							104.5
			32	829.5			13.5	1.	2.5	2.	880.5

TABLE II

(a)	Plantations				
	Acquired		32		
	Formed by Commission		829.5	861.5	acres
(b)	In hand, awaiting planting		-		
	Blanks after felling		-		
	Burnt areas		-		
	Other land		-	-	
(c)	Nurseries			-	
(d)	Agriculture.	Number of tenancies - Area:			
(e)	F.W.H.	Number 2 Area:		13.5	acres
(f)	Unplantable land in hand			1.0	acres
(e) (g) (f)	Other land -	Housing Sites		2.5	acres
		Forest Buildings areas		2.0	acres
			Total	880.5	

Physiography

Main Block. The part of Eggesford Forest known as the main block consists of a series of small woodlands separated by agricultural land. The majority of these woodlands are situated on steep slopes in the Taw Valley, following the course of the valley. Compartments 19-22 and 13 and 14, i.e. Flashdown Plantation, Challices and Barlinch Plantations respectively, are situated on the crest of the hills.

The whole of the above block is almost bisected by the River Taw which follows the course of the main valley.

The elevation is from 220 ft. to 500 ft. above sea level, and the whole area is contained within a ring fence approximately 20 miles long.

The general aspect of the main block is as follows:- Compartments 1 and 34, south. Compartments 2-4, west. Compartments 5-12, south-west. Compartments 13, 14, 18, 24 and 25, south-east. Compartments 15-17, 26-29 and part of 13, north-west. Compartments 19-22, 32 and 33, north-east. Compartments 30 and 31, east.

Bithefin. The remainder of Eggesford Forest is known as Bithefin and is about six miles from the main block and was originally moorland.

Bithefin, like the main block, is situated on a steep slope rising from 219 ft. to 500 ft. above sea level. This plantation has a stream running along two sides, and is surrounded by agricultural land.

The aspect of Compartments 1 and 5 is east, and that of Compartments 2, 3 and 4 is west.

Geology and Soils

Main Block. On the main block the general geological formation consists of the Carboniferous Culm Measures and Millstone grit. In certain parts of the forest there are outcrops of hard sandstone beneath the shillet. The clay is found mostly on the higher levels. The soil formation in this area is very irregular

Bithefin. At Bithefin the geological formation consists almost entirely of the Culm Measures.

There is no evidence of the outcropping of sandstone in this area.

Vegetation

Main Block. The main block at Eggesford originally was almost entirely a hardwood area, and the vegetation, prior to conifer planting, consisted of some hardwoods, mainly ash and bramble, bracken, dog's mercury, gorse, broom, fox-glove and blue-bell, etc. Indian balsam has recently colonised the streams. There was very little heather, but as this area had been part of an estate there was a great deal of rhododendron and laurel in some of the plantations.

Bithefin. Bithefin, prior to being planted, was moorland and the vegetation was bracken, bramble, gorse, Molinia, and a small patch of heather.

Meteorology

This area on the whole is very damp, as the weather, during a good part of the year is dull with fine, misty rain. The average rainfall per year is approximately 40 in. and the prevailing wind is south-west. Little extreme weather is experienced.

Risks

Fire risks are very small. Because of the lack of public transport, and the resultant difficulty in travelling, there are few tourists during the summer months.

All the plantations running beside both the road and the railway have now been brashed, and so the danger of a fire starting from the railway, which in the early years was the greatest risk, is now considerably lessened; also the woods are mainly scattered blocks.

A good supply of water can be obtained to fight a fire, by tapping the streams and river mentioned in the section on physiography.

Only three small fires have been recorded during the life of the forest.

The risk from frost is negligible, and there is little danger of wind-blow except by the rare, direct, west-wind which causes trouble.

There was a great risk of damage to the plantations by rabbits during the early years of the forest. All the plantations were surrounded by a rabbit-proof fence and a permanent trapper was employed. The greatest difficulty was the fact that very few of the boundary fences belonged to the Commission - the adjoining farmers were allowed to retain them.

A certain amount of fungus damage is evident, viz. Honey fungus and heart-rot.

Neomyzaphis caused much defoliation in 1950.

The grey squirrel is extremely scarce at present.

Roads

The forest, because it is made up by a series of small plantations, is well served by public roads. Inside the forest, however, all the existing tracks were accepted at the beginning of operations. Recently, (since F.Y.48) three forest roads have been completed in the three largest blocks, one road to serve Compartments 8 to 12, the second to serve Compartments 15 to 18 and the third to serve Compartments 28 to 31, together with subsidiary roads and tracks.

The total mileage of road constructed to date is as follows:-

Forest Block	All weather (miles)	Fair weather (miles)	Tracks (miles)
Hayne Valley	.6	.4	
Haywood	.3	1.5	
Foxes Covert	1.1	.3	
Lama Cleave		.7	
South Cott		.5	
Hilltown		.3	
		other 1.0	.2
Totals	2.0	4.7	.2

The construction of other forest roads, both all-weather and fair weather, is impending. These are very necessary as this forest is now all productive, and the forest roads simplify and cheapen extraction of produce.

Labour

In 1919, when work at this unit began, a large area of felled woodland had to be cleaned and planted and a labour force of from 50 to 60 men was employed. This number remained until the bulk of the planting was completed in 1925. Thereafter it decreased to approximately 14 men, and these were employed on the maintenance of the planted areas, and the preparation of ground for planting some smaller areas.

This continued until 1931, when, because of general economies, the staff was reduced to two men. Later there was an increase in staff, and at the outbreak of war in September 1939, the labour force consisted of 8 men and 4 boys.

There was little male labour available during the war years, and women were recruited to work in the plantations. To them fell the task of brashing the trees in preparation for the subsequent thinnings.

From 1946 onwards, in order to catch up on delayed thinnings the labour force was again increased to a maximum of 50 men, and these men were retained for about three years, when the numbers were reduced to 20, an adequate number of men to carry out thinnings on a three year rotation.

SILVICULTURE

Preparation of Ground

The ground was cleared of bramble, scrub and other vegetation, which was burnt. Some existing, small naturally regenerated hardwood stands were preserved. The drainage for the area consisted of cleaning out the existing water courses in the woodlands. Some turf-draining was introduced in a few wet places, where it was considered necessary. This type of drainage covered only a small area.

The temporary fences were all formed from rabbit netting and stakes; whilst the boundary fence, where this was taken over, was layed and trimmed. Very few of the boundary fences were taken over however.

Choice of Species

As Eggesford was the first of the Forestry Commission's forests to be planted, the choice of species was of necessity very limited. Douglas fir is predominant throughout, with Norway and Sitka spruces on the clay and in the damper valleys. Some Japanese larch and European larch were used to break up the Douglas fir (the larches in very small quantities), and

Scots pine was planted when available on some of the poorer and higher ground.

Fairly extensive areas of naturally regenerated ash were accepted, and beech was introduced into these areas.

The choice of species for the various woods is as follows:-

Flashdown P.20 Throughout Flashdown the natural regeneration of hardwoods, including ash, sweet chestnut, oak, birch, beech, sycamore, horse chestnut and cherry, was prolific, and this was accepted as a crop. Beech was planted throughout at a spacing of 18 ft. x 18 ft. There was also a few naturally regenerated silver fir and European larch. Douglas fir, Sitka and Norway spruce, Japanese and European larch and Thuya were planted, to a width of 3 chs. to 4 chs. on the boundary.

James' Week and Upcott P.21. Douglas fir, Japanese larch, Norway spruce, Scots pine and Thuya were planted and some naturally regenerated ash was accepted in Compartments 3 and 4. Here, as in Flashdown, beech was planted at a spacing of 18 ft. x 18 ft. throughout the ash areas. In suitable places groups of poplar and Thuya were planted.

Southcott, Homeland and Hilltown P.21. The predominant species throughout these woodlands is Douglas fir but Japanese larch, European larch, Sitka spruce and Thuya were also planted. There is an area of accepted mixed hardwoods, including chestnut, ash, cherry and oak, with beech planted as in Flashdown and Upcott.

Challices P.21. In this compartment there was an acquired larch stand of 6 acres planted 1906. The stand contained both European larch and Japanese larch. The remainder of the compartment was planted with Japanese larch, Norway spruce and Douglas fir.

Barlinch P.21. Japanese larch, Norway spruce and Douglas fir were planted.

Lamacleave P.22. In this wood there is an area which was planted with ash. Other species planted were Sitka spruce, Douglas fir and Scots pine.

Fox's Covert. Japanese larch, European larch, Douglas fir, Sitka spruce and Scots pine were planted, and there is an area of accepted ash.

Labdon P.22. Sitka spruce, Japanese larch, Douglas fir and Scots pine were planted.

Northdown P.22 and 23. There is an area of naturally regenerated hardwoods, in which, as previously, beech was planted throughout. Other species planted are Douglas fir, Norway spruce, Sitka spruce, Japanese larch, Scots pine and European larch.

Hayne Valley P.23 and 24. In Compartment 17, planted in 1923 there is one acre of accepted natural regeneration of ash, and a few odd poplars. The planted species were Sitka spruce, Douglas fir, Japanese larch and Norway spruce.

In Compartment 15, planted in 1924, there are 2 acres of acquired European larch P.06. The planted crop in this compartment consists of Douglas fir, European larch and Sitka spruce, and in Compartment 16, planted in 1924, only Douglas fir and Sitka spruce were used.

Stone Wood P.23. There is an area of 6 acres of accepted, natural regeneration of ash, planted throughout with beech at 18 ft. x 18 ft. spacing. The remainder is planted with Douglas fir, Sitka spruce, European larch and a few poplar.

Heywood P.24, 25, 26, 27 and 28. The whole of Compartments 28 and 29, planted in 1924 and 1925 respectively, are planted with Douglas fir and Sitka spruce, and the whole of Compartment 30, which was planted in 1925 is planted with Douglas fir.

In Compartment 31, planted in 1926, 27 and 28, there are 22 acres of Douglas fir and a small stand of Abies grandis. There are also a few Japanese larch planted there, a group of cedars and a small group of Weymouth pine.

In this compartment also there is a big Douglas fir, which was one of the first introduced into the country and around it are various single specimen trees. The tree was a gift of Bartlett and Bayliss (vide "Other Notes of Interest" Appendix III).

Deer Park P.26. This park was planted with Douglas fir.

Wiseland P.26, 27, 28, 29, 30 and 31. Douglas fir was planted in this wood but there are two areas of accepted hardwoods. One is an area of two acres of accepted oak, which was underplanted with beech in 1927 and the second is three acres of accepted ash natural regeneration.

Lyland P.28, 29 and 31. Douglas fir and European larch were planted.

Burrowcleave P.31 to 47. Douglas fir, Japanese larch, Norway spruce and Sitka spruce were planted. There were groups of beech planted among the Douglas fir.

There is an area of 20 acres of accepted hardwoods including oak, ash, beech and birch.

Bithefin. Japanese larch, Corsican pine, Douglas fir, Sitka spruce, Norway spruce and a group of Tsuga and some beech belts were planted. A small area of oak was accepted.

Planting

(a) Spacing in (feet) for the different species

Compartment	Douglas fir	Norway spruce	Sitka spruce	Scots pine	Corsican pine	European larch	Japanese larch	Ash	Beech	Remarks
1	6 x 6	5 x 5					6 x 6			
2	7 x 7		5 x 6				6 x 6			
3	7 x 7	4½ x 5		5 x 5		4½ x 6				
4	6 x 9	4½ x 5	5 x 6							
5	9 x 9									
6	6 x 6		6 x 6	5 x 5				6 x 6		
7	6 x 6					5 x 5				
8	6 x 6 to* 9 x 9						5 x 5			* Spacing experiments at 6, 7, 8, & 9 ft.
9	6 x 6		5 x 6			5 x 5	5 x 5			
10	6 x 6		5 x 6			5 x 5	5 x 5			
11	6 x 6		5 x 6							
	9 x 9									
12	6 x 6		5 x 6	5 x 5						
13	6 x 6	4½ x 5				4½ x 5	6 x 5			
14		5 x 5					6 x 6			
						5 x 5				
15	6 x 6		5 x 6			4½ x 5				
16	6 x 6		5 x 6							
17	6 x 6		5 x 6					6 x 5		
18	6 x 6		6 x 5			5 x 5	5 x 5	6 x 5		
19	6 x 6		6 x 5							
20	6 x 6		6 x 5							
21		5 x 5					6 x 5			
22	6 x 6	5 x 5								
23										
			9 x 9							
24	6 x 6		6 x 5				6 x 5			
25	6 x 6		6 x 5	5 x 5						
26			6 x 5	5 x 5		5 x 5	5 x 5		5 x 5	
27	6 x 6	5 x 5	5 x 5				5 x 5			
28	6 x 6		6 x 5							
29	6 x 7		6 x 5							
30	9 x 6*									* in hazel and rhododendron coppice.
31	6 x 6						5 x 5			
32	6 x 6					6 x 5				
33	6 x 6									
34	6 x 6	5 x 5	5 x 5				5 x 5		5 x 5	
Bithefin	6 x 6	5½ x 5½	5½ x 5½		5 x 5		5½ x 5½		5 x 5	

(b) Type of Plant used and Source of Supply if Known

The type of plant used in the general planting was a 2+2 plant for all species. The supplies for the first years came from the New Forest, Windsor Park and the Forest of Dean. Later the required plants were raised in the forest nursery.

(c) Method of Planting

The method used for planting most of Eggesford Forest was the T notch method with screefing and this was done with the pick mattock. Schlich spade planting was used in later years.

At Bithefin, the majority of the plantation was planted with the Schlich spade, but a small area of turf planting was done where necessary in the boggy ground.

(d) Annual Rate of Planting

During the first five years an average of 110 acres per year were planted. The average for the next seven years was 20 acres per year whilst the total planting for the next nine years was only 19 acres.

After this Bithefin was planted. This gave an average of 50 acres per year for two years. Since then only small areas have been planted, the last in 1947, being 13½ acres of woodland felled during the 1939-45 war.

(e) Manuring

No manuring has been done at this unit.

(f) Success or otherwise of establishment

The planting at Eggesford was, on the whole successful, except for many deaths during the drought in 1921 and the failure of almost all the planted European larch. The majority of the larch have had their place taken with naturally regenerated hardwoods, mostly ash.

Flashdown P.20. The conifers are good throughout, and the naturally regenerated hardwoods have been accepted as a crop, near the shade-bearing conifers, but are generally poor. The European larch has completely died out and has been replaced by hardwoods.

James Week and Upcott P.21. The Douglas fir was generally successful, although planted in 1921, a drought year. The original plants which survived even now show a marked difference to the plants which were used for beating up in the years following the original planting. Owing to the failure of some of the beat up plants some hardwoods were accepted and carried through to the canopy.

The Sitka spruce was successful but patchy in growth, a fact which caused some difficulty in the general treatment of the crop. The wide spacing has resulted in the exceptional growth of a few trees in the better groups. The Norway spruce has also grown satisfactorily. The drought caused many deaths in the Japanese larch and ash was accepted in its stead.

The European larch was not very successful. The crop was poor and proved itself unsuitable for the area.

Southcott, Homeland and Hilltown P.21. The naturally regenerated ash in these woods is poor. The Douglas fir, Japanese larch and Sitka spruce are good, but the effect of the P.21 drought is also noticeable in these areas, as in James Week and Upcott plantation.

The European larch in Southcott failed and hardwoods were accepted. The Thuya and Douglas fir in the north-east corner of Homeland failed and again the hardwoods were accepted. One acre of Douglas fir was burnt 1933 in this compartment and the area was replanted with Japanese larch.

The spacing experiments in Homeland were neglected by the Research Branch and so the hardwoods came in. These experiments therefore proved nothing.

The European larch in Hilltown Wood failed and the hardwoods were accepted.

Challices and Barlinch P.21. The 6 acres of acquired European larch (P. '06) in Challices, was clear felled during the war as it had no future, and was used for pitwood. This was replaced in 1946 by Japanese larch which is doing very well. A small area of planted European larch also failed and was replaced in 1947 by Norway spruce which is growing satisfactorily. The planted Norway spruce, Douglas fir and Japanese larch are all good. The Norway spruce, Japanese larch and Douglas fir in Barlinch are all good.

Stone Wood P.23. The European larch in this compartment failed and the hardwoods were accepted; the crop is fair. The ash and beech are poor. The Douglas fir and Sitka spruce are good, especially the latter.

Labdon P.22. The Sitka spruce in this area is exceptionally good and the Douglas fir is good. Some hardwoods have been accepted in the Scots pine and Japanese larch areas. The stands in this area are generally good.

Northdown P.22. The Scots pine in Northdown is fairly good, the Douglas fir is good and the Sitka spruce is exceptional. The European larch, however, is poor and hardwoods have been accepted. The naturally regenerated hardwood areas are very poor; a small area was clear felled in 1946 and replanted with Japanese larch which is doing well.

Lamacleave P.22. The ash in Lamacleave is poor, the Douglas fir and Sitka spruce are good and the Scots pine is fair.

Fox's Covert P.22. The Douglas fir which was planted 9 ft. x 9 ft. has proved to be a rough, coarse type; the coppice, apparently, was not strong enough to compete with the Douglas fir. The other Douglas fir is good, also the Sitka spruce. The Japanese larch, ash and Scots pine are fair, but the European larch failed and the hardwoods were accepted as a crop.

Hayne Valley P.23 and 24. The ash and a few poplar in Compartment 17 are fairly good. The Douglas fir in this compartment is not as good as other Douglas fir on Eggesford owing to gorse and hardwood competition during its early years. The Sitka spruce, Japanese larch and Norway spruce are good.

Northdown P.23. The Douglas fir, Sitka spruce, Japanese larch, Scots pine and Norway spruce in this part of Northdown are good, but the hardwoods are very poor. A small portion of this also was cleared 1946 and replanted with Japanese larch which is doing well.

Heywood P.24 to 28. The Douglas fir and Sitka spruce throughout Heywood is good and there are also some quite good Japanese larch in Compartment 31. There is an exceptionally good stand of Abies grandis in this compartment, and it has been necessary to give this stand extra thinning because of its exceptional rate of growth.

Lyland P.28, 29 and 31. The Douglas fir is good, but the P.31 European larch is poor.

Wiseland P.26 to 31. The Douglas fir is good throughout, the oak and beech are both fairly good but the ash crop was very poor. This stand was coppiced in 1932 and there is now a fair crop of ash.

Deer Park P.26. The Douglas fir in Deer Park was badly checked by Chermes in its early stages. It has, however, made a good recovery, and the crop is now quite a good one.

Burrowcleave P.31 to 47. The Douglas fir, Japanese larch, Norway spruce, Sitka spruce and beech are good. The other hardwoods are fair.

Bithefin P.40-42. All the species planted at Bithefin are doing well. The Japanese larch is inclined to be wind-swept.

Generally at Eggesford the conifers are good, and hardwoods have been accepted where the chosen species has failed.

Ploughing

There has been no ploughing at Eggesford.

Beating Up

Beating up has not been very economic or successful. In many cases owing to the vigorous growth of the trees, the beat-up plant has not reached the canopy. This plant is usually dominated by the surrounding plants and either dies prematurely or becomes a whip.

Weeding

The weeding, which consisted mainly of coppice and bracken, had to be heavy because the plantations were on old hardwood areas. It was frequently necessary to carry the weeding into the fourth year.

Mixture of Species

Although there were very few mixtures planted, there is now a mixture in most of the plantations as the result of accepting naturally regenerated hardwoods as part of the crop.

Past Treatment of Established Plantations

Weeding was carried out for the first three or four years after planting, and then the plantations were cleared, the work being done with

a staff hook, until 1931 when, because of general economy measures, the work was stopped.

This work was resumed in 1936, but by this time the hardwoods from the old stumps were in the canopy and a proportion of these had to be removed. The size of these poles had considerably increased and it was necessary to use the axe for cleaning instead of the hook.

At about this time some line brashing was done in order to open up the plantations for the first thinning. The Douglas fir in Compartment 1 was considered a very good stand, and so after its first thinning, this was brashed to a height of 9 ft. to facilitate later extraction.

In 1946 a thinning plan was drawn up for the conifer areas, the thinning cycle being three years. The plan has been adhered to as far as labour and conditions have allowed. The older plantations have now been thinned for the fourth time.

All the areas, contained within the thinning plan have had from 150 to 200 crop trees per acre pruned to a height of 15 ft. This work was done by piecework at the rate of 3d per tree.

The hardwood areas were relieved by the extraction of bean sticks and small poles in the early years. In the better hardwood stands, the best poles were then selected and marked, and the surrounding trees were thinned to favour the marked pole.

This treatment of the hardwood areas, however, gave little response, and so, owing to the failure of the plants to respond, and increasing labour difficulties, the method was abandoned.

Now, in 1951, as labour conditions are easier it has been decided to try this method of treatment again and in addition to prune suitable crop trees to an approximate density of 130 trees per acre.

Research

The only experiments attempted at Eggesford were a few small spacing experiments in Compartments 8, 24 and 34, but these were not followed up.

Conclusions

The method of treatment for the conifer plantations has had good results, and if the treatment of hardwoods had been persevered with, these areas would now be in a far better condition.

The acceptance of the natural regeneration of ash has, generally, proved a failure; whereas if a nurse crop of conifers had been introduced a better hardwood crop would have resulted.

The European larch proved unsuitable in the positions where it was planted owing to a combination of causes, inferior type of tree, frost, canker, Argyresthia etc., and this species has almost died out at Eggesford. These were planted on the higher ground but would probably have proved more profitable had they been planted in the valley bottoms.

Spruces could have been planted, with advantage, in places selected for European larch; and these could also have been carried further up the slopes in preference to Douglas fir. The Sitka spruce could, profitably, have been planted closer together as this would have given a greater yield of special poles at the thinning stage in addition to pitwood. It would also have made for cleaner poles.

The plantations could, and should, have been racked and brashed earlier in order to give a better idea as to what was happening inside the plantations, and also to help the production of a cleaner bole. The brashing in many of the plantations was delayed too long and large knots have formed.

Douglas fir was found to be the best species to exterminate both rhododendron and laurel, of which there was much, as its canopy closes earlier than the other species. Sitka spruce, however, is almost as good, if planted at the normal density.

It would have been an advantage to the forest if thinnings had commenced earlier. A four year thinning cycle could probably have been used instead of a three year one; except in the Sitka spruce where a three year rotation is necessary because of the exceptional growth of the species in the district.

The existing tracks, which were accepted for extraction routes, were suitable for horse extraction but are very unsuitable for mechanical extraction as they are too narrow.

These tracks, with a few diversions, have been widened and metalled to take vehicles.

Extraction to rideside by horse has proved the best and cheapest method on a downhill pull and the rear-winch tractor is the best and most

economical for the uphill pull. Extraction could have been much easier if, the planting had been arranged obliquely to the rides, as the poles would then have had an easier access to the ride instead of meeting it at a right angle as the majority now do. Many rideside trees have been felled to facilitate extraction.

As most of Eggesford Forest is contiguous with a main road, the banks of the road have received greater care than is usual, and by so doing fire danger has been greatly reduced.

A much larger area of the Forest could have been planted with hardwoods, especially beech.

D. N. Williams,

15/12/51.

HISTORY OF EGGESFORD FOREST

APPENDIX I

Notes from selected Inspection Reports

8.8.29. Technical Commissioner (Mr. R. L. Robinson)

Care is to be taken in cutting back birch etc. in conifer plantations only clearing the plants where they are being overgrown. This operation is not to be done in Flashdown where an admixture of other hardwoods is useful to the ash.

20.8.31. Technical Commissioner

Southcott and Lammacleave plantations were inspected and were considered very satisfactory.

Flashdown - As a general rule the older coniferous plantations should be given no further treatment for some years.

12.9.33. Chairman's note on Ash at Eggesford

Some 600 or 700 stems per acre should be selected, marked for retention and relieved as necessary, especially by the removal of chestnut,birch and unwanted conifers. The first choice for retention must be suitable maiden ash. Conifers and other hardwoods should be retained only when no reasonably good ash (even coppice suitable for retention after pruning) is available. Beech should be removed only when absolutely necessary to relieve selected ash.

7.8.34. Chairman

Flashdown - the whole of this plantation (81 acres) was formed in P.20. It contains also the first trees planted by the Forestry Commission in the United Kingdom (Planted 8.12.19).

Over a large part of Flashdown, natural ash with or without an admixture of planted birch or conifers has been accepted as the crop. This crop was cleaned in 1932 and in 1933 and is now being marked and thinned. 600 stems are being selected and marked per acre; these are being freed to give them adequate growing space.

The following instructions were given:-

1. Thinning of the unmarked stems is to be heavier and more space given to the selected stems.
2. The selection of Spanish chestnut as a crop tree is to be kept to a minimum owing to its spreading habit.
3. Pruning of the selected stems to be carried out at an early date.
4. Thinnings to be carried out about every two years.
5. When ash is in proper condition, beech at more even spacing is to be introduced; the proportion of beech to be considered later but the spacing would probably be about 8 ft. x 8 ft. irrespective of ash.

In connection with the group of trees planted in December 1919, the adjoining Norway spruce is to be gradually trimmed back and the group generally kept clean and tidy.

20.8.36. Chairman

The inspection was directed towards the plantations which are now approaching the brashing and thinning stages.

Douglas fir P.22 - The first portion visited had been planted in coppice without much preparation of ground and was consequently irregularly and somewhat widely spaced in parts. Some of the trees tended to be heavily branched. Trees against coppice had smaller and lighter branches than those against other Douglas fir.

Natural ash P.20. The area was cleaned and first thinned in 1934. The Chairman noted a decided improvement in the appearance of the crop. More beech were to be introduced where the ash crop was open.

Chairman's minute:-

The plantations as a whole have developed nicely since my last visit. Chermes is less in evidence and the Douglas fir are again making long shoots. The older coniferous plantations indicate how necessary it is to keep ash and chestnut coppice cut right back when weeding.

21.3.40. Chairman

Douglas fir P.22. This area has developed well. The trees are naturally rough and are of a coarse type but the Chairman considered that as they were growing fast it would be inadvisable to fell such areas till

it was absolutely necessary, and if possible they should be retained till the coppice had been completely killed.

22.8.41. Chairman

"Sir Roy considered that Eggesford as a whole was looking very well and that the resulting crop would, with proper attention to the thinnings, give very good results; the disposal of the smaller produce might present difficulties to begin with, but markets among the local farmers could, no doubt, be worked up".

9.4.43. Inspection by the Chairman and Mr. W.L. Taylor.

Thinnings. "The need for thinning over extensive areas has not materialised so quickly as was anticipated due to the wide spacing of the crops and the removal of miscellaneous coppice which has had the effect of a thinning; from now on the yields should be greater and of higher quality. The years when we may expect a press of thinnings to occur are estimated to be 1946 or 1947".

8.8.44. Chairman's Visit

Compartment 27 P.23 Sitka spruce and Douglas fir. "This crop had not been thinned or brashed, but it was due for treatment in F.Y.45. The coppice has been troublesome, but it was observed that both species were producing a finely branched type. The original crop was planted at wide spacing and the coppice, which was allowed to come up, had to be watched very carefully. The Chairman remarked that this was an example of the way in which wide spacing of conifers in coppice can be successful, but pointed out that the return from early thinnings is lost and that very careful supervision in the early stages is required for the system to be successful.

Honey fungus has not caused serious damage at Eggesford and the Chairman thought that this might be due to the fact that the coppice was retained alive for a comparatively long period".

Compartment 1 P.21 Douglas fir. "This crop was first thinned in F.Y.39 and has been thinned this season for the second time. The thinning done during F.Y.44 was on a very much heavier grade than had previously been practised at Eggesford. The type of thinning, however,

was approved by the Chairman, but he pointed out one case in which the removal of a hardwood had caused a large hole, had this stem been removed during an earlier thinning the danger of letting in the wind would have been reduced. Figures for this thinning are given below".

Before Thinning		After Thinning		Removed during Thinning		Percentage
Stems per acre	Volume per acre	Stems per acre	Volume per acre	Stems per acre	Volume per acre	Volume removed
530	2621	430	2365	100	256	9.8%

9.8.45. Chairman's inspection

Douglas fir P.21. This crop was first thinned in F.Y.38 and many rough trees were removed. At the time this appeared to be an unduly heavy thinning but most of the gaps have now closed over.

Northdown Plantation - Natural Ash. The Chairman expressed the view that this crop had no future.

31.7.46. Chairman's inspection

P.22 Douglas fir and patches of Sitka spruce. This crop was developing fast, height growth was now nearing 60 ft.

P.22. Douglas fir. The crop was developing very well and growth was rapid but rather irregular.

28.5.48. Inspection by Director (E).

Flashdown. This plantation was inspected in detail and the Director instructed that "The Compartment could be described as:-

1. Conifers and hardwoods (i.e. conifers with some hardwoods)
2. Hardwoods and conifers (i.e. hardwoods " " conifers)
3. Hardwoods

In 1. Favour any good ash, sycamore and cherry and treat them in that order, assuming a 50-60 year rotation. The conifers to be treated normally, but any badly-shaped single trees to be removed.

In 2. Favour the best stems (trees)

The best tree being chosen on account of its stem form and a crown that will respond to treatment.

Ash with forks at 10 ft. from ground to be considered satisfactory.

In 3. Any potential oak crop, should be favoured next to ash".

Summary

"This really means that all trees should be treated on their merits. Beech should be removed when damaging surrounding trees, and also sweet chestnut".

The Director also particularly stressed "that the extraction routes, especially the oblique principle, should be adopted in Compartments 32 and 33".

"One point about the tushing tracks and feeder lines which has escaped mention in this and other reports is the reduced risk of accident compensation claims, if we succeed in minimising the man-handling of trees on steep slopes".

Conservator's Observations

"This forest provides the best example I know of two things:

1. The danger of forecasting a successful ash crop from the presence of prolific natural seedlings and
2. The way in which under good soil conditions ash will keep up with even fast growing conifers and produce really good clean and kindly stems.

I think that the anticipation of a good naturally regenerated ash crop would not have happened if more regard had been paid in the early days to the depth of the soil, which is in many places very shallow (and it is in these places where the ash have failed). I remember this crop when it was taken over by the Forestry Commission in 1919 and the crop of seedlings were so prolific and healthy that no one had at that time any doubt as to its future, but time proved we were all wrong".

7.8.48. Inspection by Director General

Compartment 1. The Director General remarked on the slow growth generally of the Douglas fir in Compartment 1, although of the opinion that it was quite a nice crop.

Flashdown. "The Director General expressed himself completely in favour of treating all groups, and often single trees, on their merits, and also

said that he considered the small cankered larch would ultimately develop into quite good trees, and also that the ash was very nice in places, and that we should aim at a 15 ft. - 16 ft. bole and be satisfied with this".

He considered the plantation would become a good one in time.

Roads. The Director General was anxious about additional expenses after a road was completed, pointing out that this was when we spend most, and at times, unnecessary money.

3.3.51. Inspection by The Chairman

Flashdown. "The Chairman remarked that this road which had been constructed almost entirely of ashes and which was now showing signs of wear at a few places should receive attention at such places; if necessary with metalling now that such weak places had been shown up by the use of the road over which a considerable quantity of material had recently been extracted.

The inspection then continued at Flashdown Plantation where the Chairman remarked that the Sitka spruce P.20 (Compartment 19) which at one time was among the fastest growing of Commission plantations had fallen off in growth in recent years", also "that thinnings should continue especially in the ash in Compartments 20 and 21 since it had been decided to grow ash and other mixed hardwood crops here".

The Chairman also considered that Eggesford on the whole was developing normally and well.

31.7.51. Inspection by The Director

Northdown. Ash. The Director instructed "that all unsuitable poles in this crop should be cut back to ground level only retaining those poles of good shape of which there are at present very few. Those which are coppiced back will produce a vigorous stem which will pass rapidly through the stage when ash is susceptible to shoot moth attack and thus be less likely to suffer from malformation due to this pest", also "that the potential final crop trees should be selected, pruned and marked forthwith and that all steps should be taken now and in subsequent years to ensure that these trees have adequate opportunity for crown development and rapid growth".

Heywood. Abies grandis. The Director said "this crop did not require thinning for another 3 years and then the groups should be broken up.

The Director remarked that the question of the maintenance of the grass verge alongside the road between Heywood Wood and North Down plantation and also in connection with other road verges should be investigated as to whose responsibility this work really was".

"He also instructed that the possibility of the strip of land either side of Labdon Bridge being acquired should be investigated. This would reduce considerably the fence maintenance and, judging by the present crop of oak, on the ground, would enable such a species to be grown".

Upcott. "The ash crop above the Japanese larch is too dense and should be opened up immediately and work done to ensure that subsequent growth is maintained.

The pruning of poplars between Upcott and James Week as with all other poplars should be proceeded with".

Burrowcleave. Alder/Ash/Oak. "After careful inspection it was decided that the optimum treatment of this crop would be to single the coppice shoots, encouraging the oak and using the ash to complete the crop. This would reduce the crop to approximately 100 stems per acre.

In view, however, of the present access to the area and to the time which would of necessity have to elapse before wayleaves for and the construction of a new road could be completed it was decided that the immediate work should be to ensure that no trees which would eventually be required should be allowed to suffer and that the majority of the fellings should be held in abeyance until the road work was complete".

"Enquiries as to acquisition of an access to the lower end of the wood to be pressed with vigour".

History of Eggesford Forest

APPENDIX II

Supervision

The following is the list of Supervisory Staff:-

Divisional Officer	Mr. C. O. Hanson	1919-1931
	Mr. F. Scott	1931-1934
District Area Officer	Mr. R.G. Broadwood	1934-1944
	Mr. J. E. James	1944-1946
Conservator	Mr. A. H. Popert	1946 to date
State Forests Officer	Mr. G.F. Ballance	1946-1947
	Mr. J.B. Stocks	1949 to date
District Officers	Mr. W.D. Russell	1926-1934
	Mr. G.F. Ballance	1934-1946
	Mr. D.N. Williams	1947 to date
Foresters	Mr. T. Brown	1919-1927
Foreman in Charge	Mr. C. Adams	1927-1932
Forester	Mr. E.C. Kibble	1932 to date

APPENDIX III

Other Notes of Interest

1. Eggesford was the first forest to be planted by the Forestry Commission, and planting commenced on November 19th 1919 in Flashdown Plantation - Compartment 19.

The first trees planted (a group of 12 European larch and beech), are commemorated by a granite monolith, inset on which is a plaque, with the names recorded on it, of the Commission personnel who planted them.

2. In Heywood - Compartment 30 - there is an ancient, prehistoric monument. This has been identified as a double ring earthwork camp.

In Heywood also - in Compartment 31, there are a number of specimen trees. One is a Douglas fir - one of the first to be introduced into the country about 1828. This tree is exceptionally branched, and contains probably about 1200 cu. ft. including the branches. A very large Sitka spruce originally quite near, was blown down in 1929, when it contained 439 cu. ft. at 88 years of age.

APPENDIX IV

Thinning programme 1947-1952

Thinnings

Programme F.Y.47-48-49

	Proposed				Actual			
Forest Year	1st	2nd	3rd	Total	1st	2nd	3rd	Total
1947	172	68	-	240	66.05	63.55	-	129.6
1948	168	12	40	220	183.8	14.75	32	230.55
1949	50	132	126	308	36.5	13.5	247.5	297.5

Programme F.Y.50-51-52

	Proposed					Actual				
Forest Year	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total
1950	13.5	134.	41.75	-	189.25	15.5	140.95	41.75	-	198.2
1951	8.	102.	1.	131	242.	1.	95.5	1.	66.5	164.
1952	49.	33.	-	163	245.		Not completed yet			

Representative average Thinning Yields by Species

Species	P.Year	Year Thinned	No. of poles removed per acre	Vol. (TOB) cu.ft.	Material Produced
Scots pine	P.22	P.50	210	336	Conifers
Douglas fir	P.22	P.49	220	645	Pitwood
		P.51	110	672	75%
Japanese larch	P.22	P.49	200	765	Firewood
					25%
Norway spruce	P.21	P.50	187	332	
Sitka spruce	P.22	P.49	150	802	Hardwoods
Sitka spruce	P.21	P.51	150	580	Pitwood and Poles
					40%
Abies grandis	P.27	P.50	220	635	
Ash	P.21	P.51	170	240	Firewood
					60%

Eggesford

1.	Compt.	1
	Species	D.F.
	Age	P.21
	Diam. B.H.	8"
	Tree Height max.	75'
	Tree Height (av)	65'
	Vol. (average pole)	11' 6"
	Vol. per acre	3970 cu. ft.
	Remarks	High pruned 150 per acre. Wide spacing

Eggesford.

Compt.	2.
Species	S.S.
Age	P.21
Diam. B.H.	11"
Tree Height max.	90'
Tree Height (av)	80'
Vol. (average pole)	2¼' 6"
Vol. per acre	7127 cu. ft.
Remarks	High pruned 150 per acre. Contains some outstanding trees for their age - planting was rather widely spaced.

Eggesford

3. Compt.	8
Species	D.F. and Hardwoods
Diam. B.H.	6"
Age	P.21
Tree height max.	45'
Tree height (av)	40'
Vol. (average pole)	2' 5"
Vol. per acre	954 cu. ft.
Remarks	The original crop was pure D.F. completely neglected as regards weeding and cleaning. The subsequent hardwood growth was accepted and the crop is now mostly Ash.

Eggesford

4.

Compt.	11
Species	Poplar and other Hardwoods & some S.S
Age	P.22
Diam. B.H.	9"
Tree Ht. Max	70'
Tree Ht. (av)	50'
Vol. (average pole)	15' 2"
Vol. per acre	1820 cu. ft.
Remarks	Natural Poplar, now pruned in the elite stems.

Eggesford

5. Compt. 19.

Monolith commemorating first trees planted by the Forestry Commission, 8.12.19.

Eggesford

Compt. 19.

The monolith commemorating the first trees planted by the Forestry Commission, and the actual trees (E.L. and Beech) surrounding it.

Eggesford

6.

Compt.	19
Species	Hardwoods, mostly Ash, with a few E.L.
Age	P.20
Diam. B.H.	5½"
Tree Height max.	50'
Tree Height (av.)	40'
Vol. (average pole)	3' 4"
Vol. per acre	992 cu. ft.
Remarks	Mostly N.R. of Ash with natural E.L. Policy has been to treat each tree for its merits and to high prune the better stems.

Eggesford

7.

Compt.	24
Species	S.S.
Age	P.22
Diam. B.H.	10"
Tree Ht. max.	100'
Tree Ht. (av).	80'
Vol. (average pole)	18' 10"
Vol. per acre	6578 cu. ft.
Remarks	A remarkably good and even stand. The highest stand in the Forest, although not the largest volume. High pruned approx. 150 per acre.

Eggesford

8.

Compt.	30
Species	D.F.
Age	P.25
Diam B.H.	7½"
Tree Height max.	75'
Tree Height (av.)	60'
Vol. (average pole)	8' 9"
Vol. per acre	2982 cu. ft.
Remarks	Planted at 9' x 6' in Rhodo. and Hazel coppice. High pruned approx. 150 per acre.

Eggesford

9.

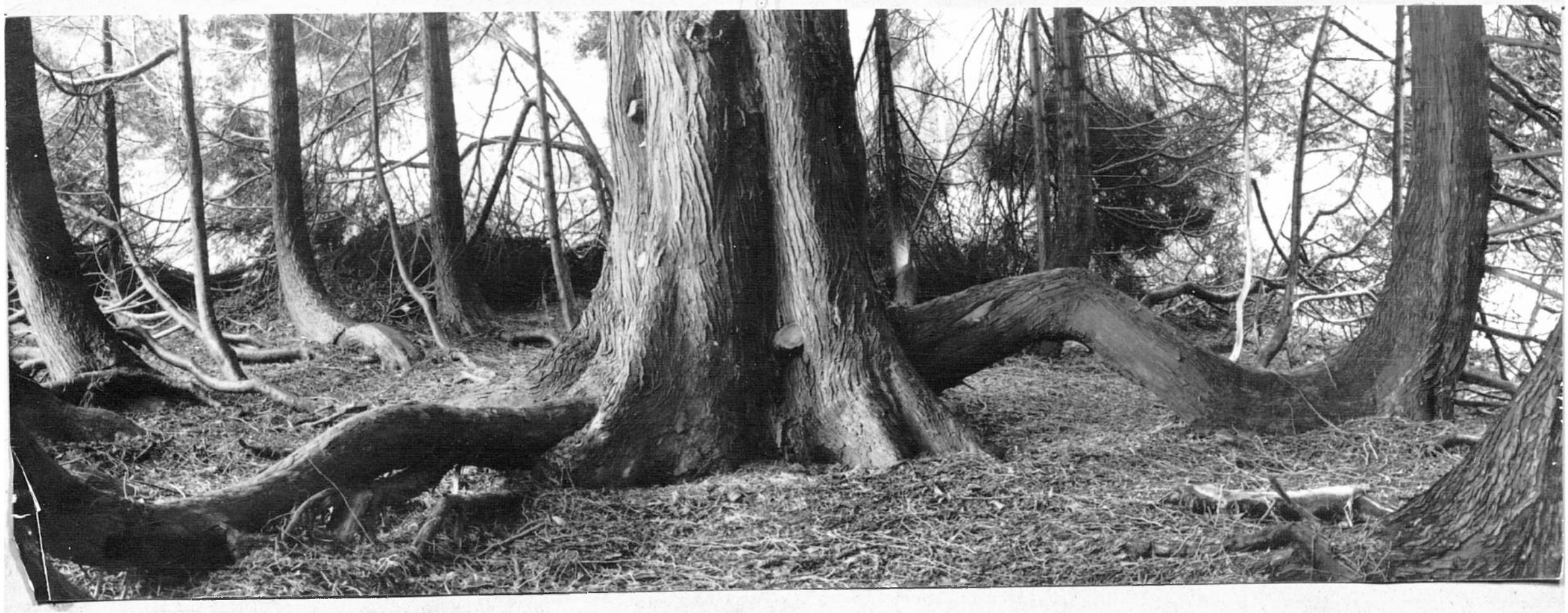
Compt.	31	Tree Height max.	75'	Remarks: A very promising stand.
Species	A.G.	Tree Height (av.)	60'	High pruned to extent of approx.
Age	P.27	Vol. (Average pole)	11' 5"	150 per acre.
Diam. B.H.	7"	Vol. per acre	4550 cu. ft.	

Eggesford

10. Compt. 31

A remarkable D.F. planted about 1828. The tree is very heavily branched right to ground level, and contains about 1,200 cu. ft. Its size can be seen in comparison with the present Forester standing beside it. B.H.Q.G. 23' 8".

Eggesford



11. Compt. 31

A remarkably "layered" Thuya.

Eggesford

EGGESFORD FOREST

1

Compt	1
Species	D.F.
Age	P.21
Diam. B.H	8"
Tree Ht. Max.	75'
Tree Ht. av.	65'
Vol. av. Pole	11' 6"
Vol. per acre	3970 cu. ft.
Remarks:	High pruned 150 per acre. Wide spacing

2

Compt	2
Species	S.S.
Age	P.21
Diam. B.H	11"
Tree Ht. Max.	90'
Tree Ht. av.	80'
Vol. av. Pole	24' 6"
Vol. per acre	7127 cu. ft.
Remarks:	High pruned 150 per acre. Contains some outstanding trees for their age – planting was rather widely spaces.

3

Compt	8
Species	D.F. and Hardwoods
Age	6"
Diam. B.H	P.21
Tree Ht. Max.	45'
Tree Ht. av.	40'
Vol. av. Pole	2' 5"
Vol. per acre	954 cu. ft.
Remarks:	The original crop was pure D.F. completely neglected as regards weeding and cleaning. The subsequent hardwood growth was accepted and the crop is now mostly Ash.

4

Compt	11
Species	Poplar and other Hardwoods and some S.S.
Age	P.22
Diam. B.H	9"
Tree Ht. Max.	70'
Tree Ht. av.	50'
Vol. av. Pole	15' 2"
Vol. per acre	1820 cu. ft.
Remarks:	Natural Poplar, now pruned in the elite stems.

5

Compt. 19

Monolith commemorating first trees planted by the Forestry Commission, 8.12.19

6

Compt. 19.

The monolith commemorating the first trees planted by the Forestry Commission, and the actual trees (E.L. and Beech) surrounding it.

7

Compt	19
Species	Hardwoods, mostly Ash with a few E.L.
Age	P.20
Diam. B.H	5 1/2"'
Tree Ht. Max.	50'
Tree Ht. av.	40'
Vol. av. Pole	3' 4"
Vol. per acre	992 cu. ft.
Remarks:	Mostly N.R. of Ash with natural E.L. Policy has been to treat each tree for its merits and to high prune the better stems.

8

Compt	24
Species	S.S.
Age	P.22
Diam. B.H	10"
Tree Ht. Max.	100'
Tree Ht. av.	80'
Vol. av. Pole	18' 10"
Vol. per acre	6578 cu. ft.
Remarks:	A remarkably good and even stand. The highest stand in the forest, although not the largest volume. High pruned approx 150 per acre

9

Compt	30
Species	D.F.
Age	P.25
Diam. B.H	7 ½"
Tree Ht. Max.	75'
Tree Ht. av.	60'
Vol. av. Pole	8' 9"
Vol. per acre	2982 cu. ft.
Remarks:	Planted at 9' x 6' in Rhodo. and Hazel coppice. High pruned approx. 150 per acre

10

Compt	31
Species	A.G.
Age	P.27
Diam. B.H	7"
Tree Ht. Max.	75'
Tree Ht. av.	60'
Vol. av. Pole	11' 5"
Vol. per acre	4550 cu. ft.
Remarks:	A very promising stand. High pruned to extent of approx. 150 per acre

11
Compt. 31
A remarkable D.F. planted about 1828. The tree is very heavily branched right to ground level, and contains about 1,200 cu.ft. Its size can be seen in comparison with the present Forester standing beside it. B.H.Q.G. 23' 8".

12
Compt. 31
A remarkably "layered" Thuya

Devon 42E. 43SW. 53NE.

— EGGESFORD —

1.	Purchase from	C.R. Claridge	29·3·20	81·138	Fox Covert
2.	"	W Western.	7·3·20	3·631	East Hilltown.
3.	"	Bartlett Baylis	31·3·23	582·926	Eggesford Woods
4.	"	W. Western.	28/1/25	11·747	East Hilltown.
5.	" from BARNSTAPLE	H.V. Robins.	25·3·25	54·000	Burrowcleare.
6.	"	W.E. Short	25·3·25	36·852	Wiseland Woods.
				776·234 acres.	

'A' is approx. 2¾ miles N.W. of 'B'.

Devon 42 N.W.

To CREDITON.

James's Week Plantation

RIGHT OF WAY

Bitherfin Moor

Beechdown Plantation

Haywood Wood

Lamacleave Plantation.

Old Deer Park Wood

Southcott Wood

Homeland Wood

Labdon Brake

EGGESFORD STATION

Railway

North Down Plantation

Flashdown Plantation

Hilltown Wood

Lyland Wood

Fox Covert

From WEMBWORTHY

River Taw

To CREDITON & EXETER

Hayne Valley Plantation

Challices Plantation

Wiseland Wood

Barlinch Plantation

Burrowcleave Wood

Great Wood

N

Forest Boundary
Council Roads
Existing Main Roads
Existing Feeder Roads
Existing Tracks
Proposed Main Roads
Proposed Feeder Roads
Proposed Tracks
Rights of Way
Waterways
Forest Holdings

Scale: Six Inches: One Mile.

— AREA PLANTED —

P20	81 acres.
P21	182 "
P22	180 "
P23	63 "
P24	64 "
P25	38 "
P26	22 "
P27	26 "
P28	17 "
P29	9 "
P30	12 "
P31	9 "
P32	5 "
P33	—
P34	3 "
P35	4 "
P36	2 "
~~P37~~	~~4 "~~
P38	2·5 "
~~P39~~	~~1·5 = 12·7 acres~~
P40	
P41	49·6 "
P42	10·0 "
P43	nil
P44	13·0 acres