5 THE YEARS WORK

Weather

The following are the rainfall figures taken at Chanonry Point, Fortrose.(The average rainfall is 25 inches)

Oct 52	1.77
Nov	2.22
Dec	1.99
Jan 53	1.27
Feb	1.44
Mar	.64
Apr	2.01
May	3.145
June	2.175
July	3.44
Aug	2.85
Sept	1.755
Total for F.Y.53	24.705 inches

From October to the middle of December the weather was open and showery with occassional hard morning frosts, to the last week in January there was snow sun and frost. The last week in Jan. it rained and on the 31st a gale of about 100m.p.h. caused the windblow .From the middle of Feb. to the middle of Apr.very light showers and then heavy showers, thetemperature during this period was warm or hot. For the rest of the year the rainfall figures speak for themselves.May, Juneand the end of August were warm and july was cold, and throughout the period it was heavy and thundery.

Degree of success

Nurseries. Spring started at the end of Febuary which resulted in the early preparation of beds and lining-out, all of which was completed by the second week of May. From the end of May and in June the hot showery weather encouraged weed growth and squads were continuously weeding from June to September. The seedlings also responded to the warm wet period and by the August count it was clear what would lift and what would have to sit.

Watering of the beds at Kilcoy was carried out in April.

Plantations (New)

Forest	Programme	Planted
Millbuie	250 acs	252
Kilcoy	450 "	444
Kessock	6 "	6

Planting commenced in October and the bulk was completed by the end of March.

Plantations (Old)

All plantations which have reached the thinning stage are in a satisfactory condition.

Labour

There was a shortage of local seasonal workers to help out in the nursery weeding. But unless there are any major disasters of gale damage and heavy weed growth , our present squads should be able to cope with next years programmes.

The resurvey of the forests in the Black Isle has been continued. The Whole of Kessock has been resurveyed and mapped and a new Plan of Operations made out.

13 PLANTATIONS FORMED DURING THE YEAR

All programmes were completed during the year except Kilcoy which was short by 6 acres. Weather conditions were favourable for back-end planting as were the conditions in Spring. The major item was the weeding that had to be done on the bracken areas in Kilcoy. Normally one cut is sufficient but due to the favourable growing conditions for bracken, areas had to be cut 2 or 3 times.

Areas planted by forests

Millbuie	252	acres
Kilcoy	444	"
Kessock	6	"

14 PREVIOUS YEARS PLANTATIONS

(a) Beating Up

This has been an average year for B.U. Areas planted with seedlings still require a lot of attention and it is hoped that in the future transplants will be used for planting. On the whole the Forests are up to date with their B.U.

(b) Weeding

The growth of Whins and Broom has been very strong this year in Kessoch Forest. The cost of cutting is from 5 to 10 pounds per acre. It is hoped that in most of the S.P. areas this might be the last cut but in the N.S. areas at least one more weeding will have to be done before the plants will be able to smother the Broom

(c) Progress in established Plantations

The gale on 31 Jan did not cause permanent damage except in a few small areas such as Eathie hill (Millbuie) were 10 acres had to be clear felled, and Target Wood (Kilcoy) were about another 10 acres had to be clear felled. Most of the blown trees have now been removed and it amounts to a thinning.

Approximate figures blown in the gale are

Millbuie	14000	cubic	feet
Findon	6000	"	"
Kilcoy	20000	"	"
Kessock	1500	"	"
	41500	"	"

The only area that has still to be cleard up is Belton Wood at Kilcoy.

Millbuie

The felling of old granny S.P. has been slowed down slightly due to the gale, but it is hoped that the bulk of the remainder will be removed by the end of F.Y.54.

Findon

The forest is pretty well up to date in its plantations.

Kessock

Thinning was not quite up to programme as the areas which had been put down for thinning had not reached the stage. Conditions in the plantations which have reached the thinning stage are satisfactory.

Kilcoy

The gale damage, the greatly increased amount of weeding in the nurseries and the weed growth in the plantations was too great for the normal squad. Local female labour was taken on for the nurseries and a squad for Millbuie will help out with the weeding.

15 PLANT SUPPLY DURING THE YEAR

The supply of plants worked very smoothly. It was greatly facilitated in the seedbeds by the use of boxes for storing and transporting.

In the plantations seedlings had to be used and it is hoped that in future years transplants will be available for planting and B.U.

17 SEED SOWING AND LINING OUT

With the exception of S.P. collected from Millbuie all seed gave good to reasonable results. Due to the wet summer the growth and germination in 1 year S.S. beds has been exceptional. The S.P. and P.Cp which weredamaged by birds were showing great promise prior to the attack

As explained in sect 21 the use of fresh hops rather than composted hops may increase the stock of 1 year seedlings in the future, and the addition of peat to dry low humus content soils may also increase the output.

Lining out

Back end N.S. Due to the clement winter there was not much frost lift, but the plants did not look very healthy at the end of the summer. Some surplus seedlings which were sheughedin in October and then lined out in spring were far better plants than those lined out in October.

The use of boxes for storing and transporting seedlings has been a great benefit. Some S.S. which were lifted in March , stored in boxes and then lined out 6 weeks later suffered no ill effects.

Plants in lines seemed very slow to start to grow and it was not until the middle of August that they really got under way.

E.L. and D.F. seedlings from Belton were very poor, in the E.L. this was due to the early frost, Caper damage and Meria in the lines. The D.F. had damaged roots which had been caused by the roots growing into clumps of peat which skinned the roots when the plants were lifted.

Weed growth has been very intensive both in seed beds and lines.

E.L. and H.L. are still in short supply and to overcome this they are being spaced out in plantations of S.P. in a ratio of 1 E.L. to 15 S.P.

The use of seedlings has still to be practised but it is hoped that in the very near future planting and B.U. will be with transplants.

The aim in the Black Isle is to introduce species other than S.P. even if they are in small groups or scattered individual trees. It is unfortuneate that the Larches are scarce but it is hoped that in 2 years time when P.53 has to be B.U. these will be more plentiful. The planting of hardwoods such as Sycamore and a useful stain of Birch should be introduced in order to improve the soil conditions.

The preparation of ground is quite satisfactory due to ploughing. Although scrub Birch and S.P. are left in new plantations they should be removed once the plants have become established, and they should not be allowed to grow too long so as to make their extraction difficult.

Weeding during the year has been much greater than in the past, this is due to the favourable growing conditions for Bracken Gorse and Broom.

In plantations which have reached the thinning stage a five year thinning cycle can be adopted for all species other than the Larches if a fairly heavy thinning is carried out in the early stages.

Ploughing equipment has been satisfactory.

Millbuie

Selective weed-killers. The use of pre-emergant spray have confirmed last years experiments that the use of these considerably helps to reduce the cost of weeding.

Soil samples sent to the Macaulay institute showed a lack of potash, unfortunately the report arrived too late to apply the potash which will be added in F.Y. 54.

Old fishing nets are to be used in Red Tank nursery in order to try and prevent Caper damage.

The lining-out plough was not a success this year due to the time wasted in trying to get the crawler to start. It has now been fitted to the Fergusson tractor and works very well.

Findon

Due to some beds in the heathland nursery being fallow, back-end seedbed preparation will be undertaken in Oct.54. The use of fresh hops and a heavier roller, it is hoped, will give a greater yield.

Kilcoy

In Belton the best seedlings are 1 year stock, if they are left for a second year they are not a good balanced plant.

School-Wood Nursery. Beds with fresh hops gave excellent results. As this is a wet nursery alleyways should be deepened.

Littleburn No1. It has grown the tallest S.S. since it was started. On the otherhand the P.C. was poorer than was expected compared with passed years. No2. The areas which produced such a poor crop last year have not produced a good crop this year. A double dressing of hops and peat may helpand potash will also have to be added. Seed-beds should not be allowed to get dry until the seed-coat has been cast.

Conclusions

From the soil analysis of Millbuie and Kilcoy all sections showed a lack of potash, and dressings will be given in F.Y.54. Another point that came out was thatthe humus content of all the soil samples sent varied between 4 and 8 % with the exception of the good growing area in Littleburn No1 which had 25%. In experimental plots were peat was added fairly good results were obtained were 2-4 inches of peat had

been added. Larger areas will be dressed with a mixture of peat and hops on these poor areas.

It is apparent that one of the major factors of the poor germination is the drying out of the top inch during the period between seed sowing and when the seed coat has been cast(by which time the root is 2 inches below the ground level). In order to retain the moisture in this top layer heavy rollers, fresh hops, addition of peat and watering will be carried out.

~~The use of~~ Boxes will be used for storing and transporting ~~plan~~ seedlings in order to clear the beds for early sowing.

Five experiments were carried out

(a) Sawdust and Peat Decomposition

The results of last years experiments was that no change took place in the sawdust. Nitro-chalk in peat turned it black and friable and so did the Ammonia to a lesser degree.The activators of Bio-fluid and Agricoloid had no marked effect. This year repeat experiments were carried out with Nitro-chalk and Ammonia on Peat and Calsium-Cyanamide on Saw-dust,but it is too early as yet to draw any conclusions.

(b) Peat on the Seed-beds

Experiments were carried out in Littleburn Nos1&2 to find out if the addition of composted peat would help S.S. on poor areas of the nursery.It is evident that there is better growth where the peat has been applied. As it has been such a wet season more striking results might have been realised if it had been drier.

(c) Back-end cultivation of seed-beds and application of fresh hops.

In School-wood nursery 2 year N.S. seedlings were lifted in Oct.1952 for back-end lining-out. The beds were then prepared adding composted hops. On 23 Mar S.S. was sown after the beds had been lightly raked over. 4 plots of 5 yards were rototilled to find out if the extra consolidation had any marked effect, there was no real difference in the plots probably due to the wet season and the early sowing.

3 beds were prepared with fresh hops and the remainder with composted hops. These beds had previously carried 2 year J.L. and were prepared in April and sown with P.C.and S.S. The P.C. showed no diference until September when they looked healthier in colour. ~~The S.S.~~ on the fresh hop beds.The S.S. on thefresh hops were earlier to germinate, had greater germination, better colour and taller growth. It is considered that there is a chance of getting better results with fresh hops.

(d) Selective Weed-killers

Trials were carried out at Millbuie on the lines of last years experiments with pre-emergant sprays. The results were that these sprays save considerable expenditure, time and labour in weeding.

(e) Lining-out in July

At Findon rising 3 year S.P. were lined out in July. It is too early yet to gauge the results but the cost was high due to extra care in handling due to the tender shoots.

No fires occured in the District during the Year. The cost per acre spent on fire protection was:- Kessock 2/8d. Kilcoy 1/1d. Millbuie 1/2d. Findon -/10d

The three forests with transport have at least 3 static water tanks with anti-splash boards so as to cut down wastage in transporting water to a fire.

The most dangerous area in the District is Ord Hill (Kessock) Signs of picnic parties can be seen throughout the area, and although it is patrolled during danger periods the remains of picnicers fires can be found on the rides. The telephone numbers of the District Officer and the Conservancy Office have been given to the Kessock Ferry who have said that if they see a fire or smoke in the plantation they will notify us.

The Fire-tower on Mounteagle has been manned this season during the danger periods.

Rabbits, Hares and Roe Deer damage has been kept to a minimum,and has not got out of control. Birds on the otherhand have been very harmful.

Rooks. In October these birds were swooping down onto the plants which had newly been planted and after about 10 swoops managed to pull out the plant. There seemed to be no reason for this as once they had pulled out the plant they tried another. It seemed that they were just having fun.

Capers. Extensive damage was caused in E.L. 1 year seedlings. The birds would graze under the laths although the squad was working only 30 yards away. It was found that they were easily scared away if the trapper visited the nursery every day for about a week and fired a few shots in the air.

Finches and small migratory birds. Very severe damage was caused in June at Millbuie and Kilcoy by these small birds eating the seed coat and cotyledon of S.P. and P.C.seedlings. This may have been due to the early nesting season and the cold weather in June making insects scarce for feeding. Seedlings which had lost the seed-coat were hardly touched.

Insects. There was a great increase in Bark-Beetle activity in the blown timber in Belton Wood.

Liverwort has invaded certain beds in School Wood and Littleburn No1 nurseries. This is probably due to the extraordinary wet conditions during the summer months.