

## Symposium in Kilkenny

MR. T. Ua Cearbhaill, Chairman for the symposium held in the Metropole hotel, Kilkenny, February 1962, opened the proceedings and introduced the first subject which was a discussion on tree species.

Mr. FitzPatrick leading the discussion said that when he entered Forestry some 41 years ago the selection of species meant something like this—if the land was good, Douglas fir was selected, if not so good then *Abies grandis* and on dry land Scots pine and European larch were chosen. Spruces were confined to the poorest ground and of the two, Norway spruce was the more popular. Later, some planting of Corsican pine took place, but, despite opinions, like Hiley's, that Corsican pine was the more economic of the species on pine ground, there is no large plantation of this species in the country.

To-day the choice seemed to be spruce—mainly Sitka spruce, and of course *Pinus contorta*. The latest report of the Minister for Lands—i.e. March 1960, gives 11,000 acres of Sitka spruce and contorta pine planted west of the Shannon, but with the addition of Co. Cork, we had a figure of 14,000 acres planted with these two species out of an annual programme of 25,000 acres.

The question arises whether or not this is good policy, and Mr. FitzPatrick expressed the opinion that our country was critically short of timber, so the planting of these two bulk producing species should be considered good policy. Plantings of this nature raised the query as to the desirability and the dangers of monocultures but he thought that these dangers were over emphasised. In their native habitat both these species did, to a large extent grow in pure crops and he saw no great danger in growing, at least for the first rotation, conifers in pure crops and in using the fastest known producers Sitka spruce or contorta pine.

Douglas fir plantings in this country, were, he thought, disappointing, but it was noticeable that Douglas fir, after its first lapse was again coming back into favour and some of the first disappointing crops had in the end yielded a return. He said he noticed in recent times that *Abies nobilis* was being more used and he understood that Nootka cypress was finding some favour in Britain although it had not yet been planted here. He suggested that there might be a place for *Eucalyptus*, if not in Department plantings at least in private forestry, in the milder south-west part of the country.

Professor Clear, on the question of monocultures said that while our conifers did in the native habitat appear in pure stand, these stands were usually the results of pure crop colonising after a fire but that in untouched or virgin forest, hardwood mixtures with the conifers were common.

On the question of species, at least with the Department, there did not seem to be much choice—only a few species had shown them-

selves of economic importance and of these the Sitka spruce appeared the best. It was a white timber, very suitable for mechanical or chemical pulps, long fibred and therefore a suitable structural timber, and of course it grew at a phenomenal rate. We also had here a suitable climate for it. There was, of course, the possibility of troubles similar to those which hit the Sitka spruce in the western European countries happening here. There, the crop had been completely ravaged by bark beetles and we were fortunate that this pest had not come to our shores. Our climate was more favourable to Sitka than other European countries and we might hope that under conditions in our country this pest might not be so catastrophic.

On the selection of contorta pine Professor Clear said that he was not so happy. He had seen this tree in its native habitat and its performance there in relation to its neighbours, the Douglas fir, the *Tsuga* and *Thuja* was very poor indeed.

Of course we could not overlook the history of the Monterey pine which in its native habitat was a rather poor specimen. By its adoption in South Africa, New Zealand and Australia it had become the world's most planted tree and the basis of the extensive pulp paper and saw milling industries of New Zealand. While admitting that the type of land being acquired in this country for planting more or less compelled the planting of Sitka spruce or contorta pine, Professor Clear expressed a choice for Douglas fir where suitable land was available.

Mr. Shine, taking up Mr. FitzPatrick's reference to Co. Cork said that in south-west Cork, Sitka spruce represented 70% of planting with contorta pine at 19% and *Abies nobilis* at 9%. Birch was also planted as fire breaks and red oak was accepted where Birch was not available. Mr. Shine agreed with Professor Clear that the type of land available on the old red sandstone in West Cork left no choice in selection other than Sitka spruce with contorta pine. On the drier knolls *A. nobilis* was planted. He did express some fears concerning the larger pure cultures of Sitka spruce and said that he mixed *A. nobilis* on all possible occasions. He said that contorta pine in this area tended to be blown over, and he thought that the admixture with spruce or *A. nobilis* was desirable.

He recalled that in his early days in forestry Douglas fir was going out of favour and he drew attention to the survey of Douglas fir in Wicklow by Professor Clear and his students and the fact that this showed that Douglas fir did not do well above the 600 ft. contour. On the flat ground it tends to sabre or blow over. The ideal ground seemed to be the middle dry slopes.

He referred to the well known failures of mountain pine and Scots pine and said that the difficulty was to find species for this ground—which was too poor for Sitka spruce and good for *Pinus contorta*, *A. nobilis*, *P. radiata* or Corsican pine.

Mr. McNamara said that in his experience one of the most difficult

sites was *Ulex gallii* ground, and if there was a place for Corsican pine he thought that it would be on these rather dry and shallow soils. He also agreed that in the matter of species selection it was a case of 'Hobson's choice'. He drew attention to the fact that much of the lands now being planted in the West were of the type that a quarter of a century ago were classified as unplantable.

In introducing the second subject for discussion—'The Place of Hardwoods in Irish Forestry'—the Chairman, Mr. Ua Cearbhaill, said that in his opinion they had no place, except possibly as a soil improver. With exceptions such as Ash they required long rotations of up to 100 years and he thought that on economic grounds their selection would not be justified. Their demand, as far as he was aware, in relation to conifers was in the proportion of 15% to 85%. He admitted that in State planting suitable sites were very rare, and consequently, hardwood planting would be dependent on public enterprise.

Professor Clear quoted from a newspaper cutting, a recent case where a Sycamore had fetched £1,050. He thought that where suitable ground was available hardwood species could be a paying proposition. Nobody knew the trends of fashion and he said that we would be wrong to ignore their possibilities.

On the question of spruces and beech, and in view of the modern trend for processed wood the issue would lie not between cubic footage produced but in the weight of dry pulp, and in this respect beech would run spruce very close. In addition, it had considerable aesthetic value, which should not be ignored. We had a considerable industry in the country based on hardwoods and we did owe some obligation to established industry. He felt that on the limited area suitable, available hardwoods could be grown in mixture with conifers. The conifer to bear the extra costs of the longer hardwood rotation.

Mr. McNamara considered hardwoods in the nature of a luxury crop and therefore as something in which one could not be economically justified in waiting the 100-200 years necessary for a rotation of, for example, beech, when in the same time we could have got two rotations of Sitka spruce. We were working on borrowed capital and he thought that we should pay our debts first, and when we had reached some degree of self-sufficiency in timber, then we might consider the luxuries of hardwood. He referred to the previous attempts to establish hardwoods in a conifer matrix—particularly the Andersonian Groups and the lack of success which attended these efforts. This was probably mainly due he said, to the considerable additional care needed in bringing these groups through—which the forester, on account of his many duties would not find the time to apply.

He thought that elm might have a place as a hardwood in our forests; it did not require as long a rotation as some other hardwoods, it was a good volume producer, and also its timber was suitable for many purposes. He did not accept that hardwoods should be planted

for amenity purposes only, but thought that a blend of conifers such as Douglas fir and larch would give as nice a picture and at the same time yield a valuable timber crop.

Mr. Shine said that he thought that hardwoods could give rise to small local industries, such as wattle fences, basket making, etc.—but only in an aura of greater prosperity could he see great demand for them.

He agreed with Mr. McNamara, that the Andersonian Group had not been a success and he said that he would prefer pure planting of hardwoods to any grouping or mixture with conifers. He suggested an overall percentage of hardwoods for the country as a whole. He also made reference to their amenity value.

Mr. FitzPatrick said that sentiment does largely control our thinking with reference to hardwoods. We liked to see them in hedgerows and parkland and in the woods. We also liked to see them used in furniture.

He said that deciduous trees had a place in keeping the forest healthy. At one time larch was considered the most economical crop on good ground—with beech as a secondary crop to help the larch. Generally, however, the idea was not successful. He quoted an early article by Professor Clear that the deep rooting beech brought up calcium and through its leaf fall deposited it on the forest floor for the benefit of the secondary conifer crop. He queried this contention on the grounds that conifers did not like limey soils. He suggested that there might be some merit in taking some of the faster growing hardwoods such as poplar and elm, planting them at wide spacing and giving them the optimum cultivation and manurial treatments. He stated that there was an increase in the export of hardwood in recent years due to the fact that it can now be exported in plank form. He wondered why it was not Government policy to buy up hardwoods as they appeared on the market and retain them for another 50 years or so before felling, and thus keep a reserve for Irish based industry.

Mr. McNamara disagreed with the idea that hardwood did not do in mixture with conifers and suggested that if from the onset a clear and definite management plant was devised for the 'mixed' area and adhered to by successive foresters, then successful crops should be possible.

Professor Clear pointed out that one of the major uses of ground limestone on the Continent was for the dressing of conifer soils to bring up the calcium content, which was vital in the yield and regeneration aspects of conifer management.

On the next topic, that of silviculture and management in relation to recent development in timber utilisation, the Chairman, Mr. Ua Cearbhaill, drew attention to the two schools of thought in management.

- (1) Management based on economics.
- (2) Management based on the biological aspect.

He also had to consider such aspects as forest structure, distributing of age classes, effects of edge cuttings and the principle of sustained yield. He wondered what the panel's attitude would be to the "making hay while the sun shone" and the felling for a particular market—generally without any plan for the future.

Professor Clear opening the discussion, said that the recent developments in the trend of timber utilisation was towards pulp, chipboard and fibre boards which were all voracious users of timber. To meet their growing demands the forester might find himself compelled to cut before maturity either in the economical or technical sense and to the detriment of the older established forest milling industries.

Mr. Shine said that this trend was not very apparent as yet in the South of the country. Here we had little native timber; the material was mostly thinnings. Thinnings were marked strictly in accordance with the British Forestry Commission Yield Tables and were therefore well controlled. The market in transmission poles had, he thought, given a welcome boost to larch and Douglas fir. The disadvantages of this pole market were that the tendency to fell the better trees in the stand to the detriment of the final crop. We should be careful that for no reason should we cut more than our increment, or we would eventually find ourselves without any forest. Individual forests cannot be managed on a sustained yield basis, but the country as a whole should. He questioned the wisdom of the short rotation, and said he thought as Mr. FitzPatrick had earlier suggested, that we should store for the future other than cash in on the present market, because while we might get good price now, it took a long time to replace the timber and we would suffer from scarcity in the interval.

Mr. FitzPatrick agreed that there were changes in utilisation trends; we now find that there was more demand for partly processed timber such as wallboard, chipboard, veneered timber and that at present there was a lucrative market for transmission poles. However, he thought that it would be unwise to depend on the continuation of this latter market. The experience of recent storms were causing the Post Office to go under ground and there was a possibility that the Electricity Supply Board might do the same.

He said that his calculations based on the Statistical Abstracts was, that we used annually some 15 m. Hoppus feet of conifer as lumber, and  $7\frac{1}{2}$  m. Hoppus feet as pulp, paper, and other processed timber. He further calculated that to meet this home lumber requirement we would need some 300,000 acres, assuming an annual production of 50 H. ft. of saw timber per acre. He thought that therefore we should concentrate on saw timber production and he thought that our pulp and paper requirement of  $7\frac{1}{2}$  m. H. ft. would be largely met from normal thinnings and wastage of the saw milling industry. He thought that we should concentrate on the Spruces and grow to a prescribed plan with the objective of saw timber production in the shortest time.

Mr. McNamara said that he understood from enquiries that the

cost of underground installation would be eight times that of present E.S.B. installation so that he thought that Mr. Fitzpatrick should have no worries in the foreseeable future. The main danger he saw in the pole market was that it would rob our forests of their elite stems. However, he said, that on checking up on this aspect he was satisfied that sales were not sufficient to cause serious danger at the moment and he believed that those responsible for our policy would see that no permanent damage was done.

The Chairman thanked the speakers to the Symposium for their constructive contributions and wound up the proceedings.

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