

Thinning of Softwoods from the Timber Merchant's Point of View

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SUMMARY

Indicates the kind of timber which the merchant needs to meet the main softwood markets; coal-mines, pulp and paper, boxes and packing cases, agriculture, railways, and house building. Timber should be straight and have little taper. Logs should average 12 to 14 feet in length with even width of rings and with only small, preferably live, knots.

The paper suggests that thinnings will be necessary to produce this kind of timber but there will be occasions where the removal of stems thinned will not be economic such as when distances are too great, the terrain too difficult, where there are no roads, or where the volume per acre is too small. The bulldozing of roadways on suitable ground before planting is strongly advocated.

MAY I suggest that 'to thin or not to thin' is not the question? There are times when it does not pay a timber merchant to fell or extract some kinds of thinnings or cleanings. In some cases the forester should knock the defective trees down and leave them on the ground.

The question is one for argument between the forester and the timber merchant and not between two timber merchants.

May I here observe how appearances sometimes deceive us, in people as in trees? One would expect a grey-haired, bespectacled kindly looking gentleman like our President to be a man of peace. I am sorry to have to tell you that this is not so. He has inveigled Mr. Finlay Wilson and me into this discussion and he has told us, in almost as many words, that he hopes to see us jumping about and growling at each other like a pair of fox terriers with hair and tails erect and adding generally to the night's enjoyment. I am sorry if I have to disappoint him and you as, when I remember my advancing years and my increasing quarter girth, I think of Jock Milton, one of our foremen, who on one occasion declared rather sadly, 'I canna' fecht, an' waur than that, I canna' rin'!

Now I do not pretend to know whether woods should always be thinned or never thinned or something in between, but I can suggest to you with some confidence the kind of softwood timber a timber merchant wants and the working conditions in which he wants it, and it is up to the forester to supply this or to persuade the timber merchant to accept something different.

The main markets for which we grow softwood today are—coal-mines, pulp and paper, boxes and packing cases, agriculture, railways, and house building. In what way does thinning help or hinder our ability to serve these markets?

We want straight, round logs with as little taper as possible, averaging 12 to 14 feet in length with even spaced rings and small knots which should be preferably live. The volume per acre should be as big as possible, i.e. the

trees should be as long as possible and should grow as close to each other as their size will allow.

Now I do not know how you will produce this, but I do not think you can do it without thinning. Nevertheless there are conditions when thinning can be too expensive to be economically justified.

Just as market gardening is usually carried out near the centres of population, so timber suitable for special purpose should be grown for that purpose near the market. Examples are coal-mines, pulp or paper mills, board mills, and so on.

If a forester can grow small-sized trees suitable for these markets without thinning and in adequate volume per acre he should do so. Proper cleaning at a very early age and intelligent choice of species can help him. Presumably his product will cost less to produce.

Another case where thinning can be uneconomic is where extraction is too difficult. I remember the first time I went over Rest and be Thankful I gazed in awe at the places in which trees had been planted. I imagined the foresters, armed with an alpenstock, trenching tool, mattock, or whatever they used, clambering or bounding from cliff to cliff and sticking in one plant here and one plant there. Far be it from me to discourage anyone from growing a tree where none grew before, but I could not help thinking that the Divisional Officer or District Officer who thus displayed a lasting memorial to his energy, could not have liked timber merchants, who would have the job of lowering the trees to the valleys. In places like those, I would ask a more generous and knowledgeable generation to knock down and leave on the ground such trees as were keeping better trees from developing in the way they should grow and to prefer a clear felling once in the tree's lifetime to a thinning once in five years.

Now I do not know much about conditions of work in the west. I know that much of the ground is hard rock or soft peat. Much of it is steep with few reasonably level places for sawmills or even ordinary yarding sites. I know of men from the east who went to the west of Scotland, confident in their ability to work hard and to do better in that country than anyone had done before. Very few have stayed. Most have come home—if not like Napoleon's army returning from Moscow, then perhaps like Noah in his ark—sailing about looking for a dry bit of land on which to settle down.

This difficult question of when to thin or not to thin in the west I would leave to Mr. Wilson to argue with the forester, and I would turn home to the east where we have a lot of Scots pine, where the ground is more gravelly, where the hills are not so steep, and where we have two or three of the most thickly wooded counties of Scotland.

I hope that the foresters here who have heard my arguments about roads before will forgive me if I repeat them. I welcome the opportunity of advocating before such an audience as this one a course of action of which the correctness is self evident to me, but, alas, is not so to many foresters, at least not to many Forestry Commission foresters.

I speak of the advisability of forming inexpensive roadways by bulldozer

or traxcavator as early as possible—after ditching and ploughing and before planting. Forming the simple and cheap roadways at this early stage enables you to avoid rocks and to choose dry ground. Leave the areas of deep peat to be dealt with later on, and metalling with stones or gravel can also be left till later. Forming the roadways at this early stage enables you to plant up the spoil at the roadsides and facilitates the transport of plants and planters, fire fighters and supervisors from the early days of establishment.

I suggest that when you have deep peat, the making of roads should be left till the first cleaning is done. Then roadways should be corduroyed by small trees and brushwood. Do not be afraid of laying it down 2 to 3 feet thick. Roll it down with a tractor or preferably a caterpillar and then put on gravel. If properly done this will make a good road. Remember that many swamps in Canada and indeed our own Rannoch Moor have been crossed by railway using this method.

You may ask what has the making of roadways got to do with thinning. I reply that in the north, the east, and the south of Scotland, thinnings can be valuable to a forester if there are adequate roadways and if the roads are cheap. This kind of roadway can be made at £400 to £500 per mile and it does not take much calculation to show that the *extra* price you can get for thinnings will pay for these roadways in the first or second thinning.

I am not sure what spacing to recommend. We put roadways in at 150 to 200 yards on level ground, costing about £400 to £500 per mile. Mr. Zehetmayr may have different views on this.

With regard to maintenance of roadways, water control, and gravelling or metalling, this should be done by the forestry squad on days when they are normally doing less important work. This would be one useful way of defeating the debilitating cancer which we call Parkinson's Law.

While in suitable parts of Scotland cheap roads are most important, in some places other methods of extraction have to be used. If they are winch lines or racks for tractors or horses do not hesitate to agree to their formation. You will not lose much volume per acre, and you will add considerably to your price per cubic foot.

I do not pretend to be a skilled forester. I cannot compare intelligently the advantages in rate of growth or in quality of timber which can accrue from thinnings done at one-year intervals or at intervals more widely spaced. However, I do know something about the extra cost in felling and in extraction which can occur when the volume of thinnings per acre is too small. I know a little about the irritation which can overcome you, when from one marked tree you have to look around and perhaps walk a bit before the next one comes in sight. The irritation is all the greater because you know that the small tree standing by itself will probably be lost to sight when it is felled and when it successfully hides itself in the long grass from the searching eye of the horseman. I am sure Mr. Zehetmayr can convince you more easily than I can of the much greater cost of felling and extracting thinnings which are too low in volume per acre.

It is for the forester to decide on when any increase in quality or volume of the trees left standing is cancelled out by the poorer price which the timber merchant can give for thinnings which are uneconomically light.

Now that we have encouraged a better price for thinnings by cheapening felling and extraction, let us consider the kind of trees we want to grow.

The trees, whether thinnings or final crop, should be sound, straight, with small knots which should be preferably live.

Pit props have to be very straight and for all other purposes reasonable straightness is important.

A large proportion of thinnings is juvenile wood. This is not very good, even for firewood. As one man said 'They ging up the lum wi' ae fluff'. In spite of this our Scottish spruce is popular for some types of newsprint and at least one progressive firm exports spruce to Norway.

But the timber merchant has always to battle against the defect that juvenile wood suffers from excess shrinkage and that, as one Russian inspector said, 'It's more like cabbage than timber.'

Now I have not attempted to tell an audience of foresters how to produce what I think we want. I have only suggested in a modest way what it is we timber merchants do want—and may in conclusion suggest, again in a modest way, that the customer is sometimes right.