

**Antti Korpikallio**

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**Video**

**Duration: 29:11**

**Transcript**

### **Haka-Wood: the only birch sawmill in Finland**

My name is Antti Korpikallio, and we're a small company, so I'm doing a lot of things in the company. We have three main owners in the company – I'm one, our managing director, responsible of production – Tuomo Saarisilta – is the other one, and we have one of our main customers, Ecobirch from Estonia, as part owners.

I've been working in Haka-Wood, or together with Haka-Wood, maybe for about 25 years – all my working life, and I have been part owner now for about 15 years. Haka-Wood is the only birch sawmill in Finland. All others are just cutting with one-plate circular saw. We are also small, compared to softwood sawmills. But as a birch sawmill, we are rather big. We cut about 20 000 m<sup>3</sup> of ready-made material per year, and about 60 000 m<sup>3</sup> of logs (maybe a little bit more than that), but of course, we are a very small sawmill – normal softwood sawmills nowadays cut maybe 500 000 m<sup>3</sup> of logs.

### **Family company roots and more recent development**

It [Haka-Wood] was founded in 1962, by Hakkarainen family. It was for a long-time family business, owned by only one family. It has been all the time

in the same place, and all the time we have cut only birch. 15 years ago, there came quite big changes in birch business. When Soviet Union collapsed, and Baltic States were freed from Soviet Union, they had a lot of very cheap labor, and a lot of birch in the forest. They started selling that. So, the market price for birch timber went down very heavily. Haka-Wood was after that in quite big problems. About 15 years ago, me and one other guy got the ownership of the company and started quite big changes. At the same time, all other Hakkarainen family members left the company; only one stayed, and he also left a couple of years ago. For the past 15 years, we have been very heavily investing, we have practically changed everything. We are now on the way to make it a better sawmill. But of course, all the time there are more investments to make.

### **Change of focus after the Soviet Union collapse**

Earlier, there were about 20 birch sawmills in Finland, and Finland was cutting birch timber quite a lot, because a little bit came from Russia, but not much. But then when Soviet Union collapsed, Estonia and other Baltic countries started to cut it, there was a big competition. And of course, I think our labor cost was ten times bigger, compared to Estonia at that time. It was a brutal thing. Now Haka-Wood is the only company, that survived. Then we started to focus more on very special products, and we started to make special qualities and sizes for, let's say more high-end customers, like Artek, for example. That is our way of working. And of course, we try to be efficient. Haka-Wood production, when I started, was about 6000 m<sup>3</sup> [of wood]. Now it's 20 000 m<sup>3</sup>. We have increased quite a lot.

## **Sourcing of birch in Finland**

We have two birch species, *Betula pendula* and *Betula pubescens*. In my opinion, silver birch is different; so it's white birch that we have. In these other species, you don't see the difference after it's cut – you can only see that the leaves have a little bit different color. The log quality is lower normally, but if you have a good quality *Betula pubescens*, it's no problem to cut it. About 10% of our logs are those [*Betula pubescens*], and they are included in the cutting. It doesn't matter.

We don't have our own logging at all. We buy all the logs from partners. Our main log supply comes from softwood sawmills and Stora Enso – a big company, making pulp and paper. Those are our main suppliers. We have forestry areas in Finland, that make their own logging. We buy also from them. Basically, we buy logs from all other woodworking companies, except Metsä Wood and UPM, which are making plywood themselves. They need birch for the plywood. Our logs come from, let's say 200-250 km radius from our sawmill, and it's a very wide area. For example, our neighbor softwood sawmill, who cut about 1 million cubes of logs, is almost the biggest sawmill in Finland. Even them, they have only 180 km radius. You can get 1 million cubes of logs from a shorter area, than we get our 60 000. There are only a couple of percents of logs in the forest, that can be used for birch logs.

## **Careful selection of quality logs**

We have a lot of suppliers, and I like to keep it like that. We also cooperate with smaller players. We have a couple of log suppliers, who only supply

very good quality logs for us. We want to buy from them. Basically, if it's one truckload of logs, and it's cut according to our quality instructions, we'll buy it. Birch is not growing straight – it grows curvy. That's the biggest criteria why we don't take some logs: we accept only a little bit of curving in the logs. And then, of course, in birch logs, there can be brown heart in the center, even quite a lot, especially if it's growing in a very wet area, or if it's cold. We have some limits also for that. Then, of course, if there are extremely big logs, and for example many small defects, they are rejected.

### **Origins of the best logs**

The best logs that we get are from the mixed forest – main species is spruce. When birch is growing in the spruce forest, it's absolutely the best. For example, we are cutting Artek materials only from these logs, I'd say 90% of those comes from spruce forests. Now there are more and more birch plantations in Finland. We have less agriculture, maybe you know it already – but all the old fields have been forested. A lot of them have been planted with birch. We are buying those also, but it's a lower quality raw material for us. Soil is often too wet and there's too much....how do you say? If it's an old field that was used in agriculture, it's even a too good land for the forest. But we are buying that, and then we make a lower quality something from that. You asked if we know where it's coming from – we know exactly, from which cutting area. Normally it's 100 hectares' area, which we know. When the truck comes, it has the area number where it's from. With some of the suppliers, we don't have this information, but the suppliers themselves are gathering birch from different places, so they have the information where the logs come from.

## **All types of birch quality will find their use**

First, we are producing unedged material. What we supply to Artek is unedged – and in unedged we have a classification: ‘E’ quality, which is extra, prima – means that it's defects-free on both sides. No defects, or very small, can be allowed on one side. ‘A’ quality is a quality when one side is defect-free. There are no knots or anything, and then on the other side there are a couple of knots, let's say one-two knots per length meter allowed. ‘B’ quality is a quality where there can be some knots on both sides. In ‘C’ quality more knots, brown heart, other defects come. That's how it goes. A quality is the second-best quality – and it's the best quality where we can make volumes, because E quality can be found in very few pieces, but we still produce some of these ‘E’ quality.

Our system is such that if we can see during the production that there are through-going knots, and it would be B quality, or C quality, we try to cut this material into edged timber. For example, if we make 50 millimeter material to Artek, and during the cutting stage we see that it will not be ‘A’ quality, then we try to make 50 X 150, 50 X 100 millimeter material from that. And this goes to ‘B’ – when it's edged, we call this quality ‘AB’. It's a little bit different, but to make it simple, we're going to call it ‘B’ quality now. When we edge ‘B’ quality, it goes to the furniture production for lower quality furniture, with a lot of finger jointing. Very often, we cut ‘B’ quality to 25 or 32 millimeters, and we have different customers, who make edge-glued panels or finger jointed furniture out of that. ‘C’ quality goes mainly to Ecobirch, our partner – they mainly make this kind of rustic panels, so they

finger joint it, and they can accept also brown heart. Also in upholstery, part of that 'C' quality goes for invisible use in furniture frames.

### **Forest management system in Finland affects the materials available**

In Finland, about 99 (and something) percent of forests are PEFC certified, and maybe 1.5% are FSC certified. If we chose FSC certification, we maybe could get about 200 m<sup>3</sup> of logs per year. And that's not business anymore then. So, it's impossible to get FSC logs in Finland, because all forests are PEFC certified. When we have smaller size logs, they are cut. You know this system, that we have in Finland: they make first cutting, second cutting and then third cutting is the clear cutting. So smaller logs come from second cutting to us, when part of the logs are taken away. The biggest logs very often come from clear cutting. There is not so much forest which is in continuous cutting in Finland, but of course, because we are not doing the harvesting, I don't have any numbers how much now is of continuous cutting, or how much is different. But I assume that most logs come from clear cutting.

### **The best source of birch is a spruce forest**

As I told earlier, for us it's better to have this kind of mixed forest. Every forest in Finland, somebody owns it. If they cut the forest, they will plant new forests, because we are not stupid – if we own something, we like to keep it. They say that you must do things in a certain way, but, like you maybe know, in Finland, we do much more than PEFC or FSC because it's living for the people. It's only business to take good care of the forest. I think the best way to get birch is, if they cut, for example, spruce forest, they

plant new spruce, because that is natural main species for this forest. Birch comes naturally as a side product. There is no need to plant birch. That's the best way, of course. In some cases, they add birch plantations to some old fields. But these are not the best logs for us.

I'd say that 80 years' old birch is already too old; there is generally too much of brown heart. I'd say [the suitable birch age is] 50-60 years; if we take spruce, it's 70 to 90 years. Birch should be cut earlier than spruce. But this is not the knowledge, it's just how I have understood it – if you plant spruce into cut harvested forest, of course, it's a couple of years' old plants first, and when it starts to grow, birch comes little by little. That's the reason that those trees in the spruce forest are older than birch trees. It comes maybe naturally that way.

### **Why is there more spruce planted, than birch?**

I think it was economic reasons, because you cannot make tar out of birch. You know, tar was maybe the first export product from Finland, also you cannot make [from birch] other things that Finland was producing and exporting in the early days. Birch was only firewood, more or less. That's at least how I think it was not a wanted product in the forest, because it just took space from economically better species. But like you said, it changed, I think, in the 1970s or something, when they started to make paper from birch. And then there were a lot of birch plantations, and in the 1980s and 90s there were a lot of talks that there will be a big sawmill industry in Finland for birch in the early 2020s, because of these new plantations. But it turned out that the quality of logs from these are not so good. For example,

for us it's not playing any big role. And of course, plywood industry is going up, or has gone up also. I think most of those plantation logs go to plywood industry, or pulp.

### **For birch sawmill business, conditions are not optimal**

If we think about our production bottleneck, it has been all the time the raw material. And it's not only high quality. Of course, we would like to cut as high-quality logs as possible, because we can get more high quality and high-priced products, which makes our so-called business better. But even in general, even let's say middle-length logs that are suitable for sawing, we need to search for them very hard. In the past ten years, I have noticed that we get even a little bit less of best quality. Average log size of birch has gotten smaller, which means that we get less of best quality bottom logs, which we can cut, for example, for Artek. We are now cutting a double volume of logs compared to ten years ago, but we get about same, or only a little bit higher, volume of these best qualities – A and E quality. It has changed, maybe [the situation] is stable at the moment. Most probably it's this, because these plantations started to come into market, and we don't get any good quality logs from those, it's only B and C quality coming. I can't say that I fear what will happen, but it's just a fact – there's not enough logs in the market. And I think it is the main reason that there is no real birch sawmill industry. We are the only industrial sawmill in Finland, because there's only possibility for small business. And there's a limitation in growing, you need to be very specified. Of course, for us, we have survived, we have a very long-term customers and special qualities. We have focused on serving our main customers. We will not ever be very big – for



newcomers it's not very interesting way, that you can survive, but you will never be big. No use to even start that.

I think, of course, also plywood industry wants high quality. One-year logs must be of very high quality. So maybe there's a little bit more competition of the best logs. And then when the overall volume of birch logs has increased, it mainly is this plantation forests. Which means that if there's a 50% increase in the log supply, it can be only 10% increase in the good quality log supply. [This means] a little bit more demand, and not so much more supply. Even if the overall volumes have increased.

### **No threat of deforestation in Finland**

Like you probably know, forests are growing more than million cubic meters per year, more than what we are harvesting. Total volume of forests in Finland have been, I think for the past 25 years, more than what we are harvesting. And in my opinion, it will stay [like this]. Maybe with continuous harvesting, forests are coming more into table, and when it should be, it will be used more. But at some point, I think that we will maybe increase the overall cutting to the level where it's the most stable with growing. Now the gap is quite big between harvesting and growing. Of course, there will always be more growing than harvesting. We have these natural – how do you say – places where you cannot harvest. Haka-Wood also has 10 hectares of protected forest. We bought it together with one land. I don't know if other sawmills have, but our company also has protected forest.