With roundwood production from plantation forests expected to treble shortly after the turn of the century New Zealand will be looking to sell the greater part of this burgeoning harvest offshore. It is therefore essential that we are internationally competitive. Some recent indicators suggest that New Zealand's forest industry has been failing in its attempts to keep up with the pace-setters in the international marketplace.

Andy Kirkland, Managing Director of New Zealand Forestry Corporation Limited, is one who very clearly sees that keeping up with the play in the international marketplace is the great challenge ahead for our forest industry. Last year he spent some time in Finland and Sweden, as these countries are now widely regarded as the most advanced in the world in the softwood processing and marketing business. Both are at the cutting edge of forest industry technology and as New Zealand begins to process a younger softwood crop utilization practices will be very similar to those of Scandinavia.

Collectively the Swedish and Finnish roundwood production of 110 million cubic metres per year exceeds New Zealand's present production by ten times. However, growth rates for the main Scandinavian timber species range from about 1.5 to 4.5 cubic metres per hectare per year—an poor contrast with the productivity of New Zealand's radiata pine. "In practical terms this requires about five times the area of land to produce the same volume of wood," said Andy Kirkland. "This multiplies up all the other requirements such as roading which is certainly a substantial disadvantage compared to New Zealand."

Andy Kirkland was impressed with some of the new technology he saw. Scandinavia has developed highly automated containerized nursery techniques and planting is done using planting guns and container stock. Sweden has more mechanized harvesting equipment, with Finland retaining a large proportion of hand felling because of its importance for maintaining rural employment. The level of sophistication in sawmills is high. Productivity per man is an outstanding feature. Three years ago New Zealand's productivity per man in medium-sized sawmills was about 800 cubic metres per year. Using Scandinavian technology this could be improved to 5000 cubic metres per man year.

Andy Kirkland has given notice that the Forestry Corporation will be looking to Scandinavia, as well as to Canada, for advice on likely future investment opp-

Lessons from Scandinavia