## 2.3 USE OF CONTRACTORS

Log harvesting in Australia, both in the hardwood and softwood sectors, is mainly carried out by a contract force, totalling 3,170. With sub-contractors and employees there are about 8,000 directly employeed in logging operations.

The softwood logging contractors tend to be mechanised, have large investment in their machinery, have larger log volume contracts than their hardwood counterparts and are fewer in number as well.

The hardwood contract force is more labour intensive, motor manual in its tree falling operations and is beset with a seemingly constant problem with the conservationist lobby and the accompanying threat of a progressively declining resource availability.

In the past the major wood purchasers provided financial support to contractors in the purchase or lease of equipment but today the contractor arranges his own financing. The continuing high cost of money and the increasing cost of some imported machines due to exchange rate fluctuations have had an influence on contractor machine selection. Price is paramount.

## 2.4 REVIEW OF MACHINES

Logging machinery from North America and Scandinavia is found in both hardwood and softwood forestry operations in this country. The use of motor manual fallers has significantly declined in pine plantations in the past five or six years with mostly all thinnings being felled and processed mechanically. The use of chainsaws is limited to clear fall large trees, edge trees, those on steep slopes and hardwood logging.

It is estimated that there are about 10,000 chainsaws in the field, with annual sales to professionals running at 4,000. The categories with most potential are chainsaws in the 50 to 70 cc brackets, with the more powerful machines, i.e. of 100 cc capacity or more, having limited application. Stihl and Husqvarna are the undoubted market leaders.

The mechanical harvester market is dominated by two manufacturers, namely Rauma Repola's Forest Machine Group (FMG) and Valmet. Current machine population is estimated at around 140 with sales averaging between 10 and 15 units a year. The single grip harvester appears to offer better potential in the first and early second thinnings.

In the harvester area, the add-on attachment segment is of reasonable size with a variety of harvesting heads being fitted to a range of machine types, mostly excavators. Brands of felling head attachments include Valmet, Waratah, Steyr, Lako and Vulcan. About a dozen units are sold each year, a third or more are believed to be Lako. Carriers used include Caterpillar, Kato, Kumatsu, Hitachi and Sumitomo. These same units are used as processors, i.e. delimbing and cross-cutting as well as for loading grabs.

It is estimated that there are about 180 feller bunchers operating in the bush with sales running at 25 to 30 units a year. Timberjack's Timbco and Bell's new tracked feller buncher are highly regarded with other units coming in from Scandinavia, USA and New Zealand.

Canadian track-based stroke delimbers are well-represented in this area where totally there are some 100 units with sales averaging 15 a year.