

Cost of tree seedlings and cuttings

This issue of the market report is primarily for small scale growers who want to plant radiata pine or eucalypts for commercial wood production and are seeking information on their seedlings and cuttings.

It also reports stumpage for public forest logs in Western Australia.

Focus on inputs also

Traditionally, forestry market reports deal with products such as logs. However, ANU Forestry Market Reports have a wider scope; they deal with products, inputs such as tree seedlings and financial topics that are important to growers.

Denis Neilson is a leading forest industry consultant based in New Zealand. In a paper given recently at a conference in Hawaii, he emphasised the necessity of keeping the cost of log production as low as possible. However, he did not imply cutting the costs regardless of consequences. Indeed, he cautioned against skimping on specific costs, especially those during the early years of tree establishment. The cost of tree seedlings and cuttings belongs to that category. Superior seedlings or cuttings certainly cost more but skimping on it may be economically inadvisable.

Economics of planting stock

A study by Michael O'Regan and Leng Sar at the Australian Bureau of Agricultural and Resource Economics compared profitability of two sets of radiata trees. One set was grown from superior cuttings and another from seedlings raised from orchard seeds. All trees were planted on comparable sites, given same care and harvested at age 36. Both sets of trees reached the same heights and yielded the same volumes of wood. But trees from cuttings produced distinctly high quality of wood and generated 14 per cent higher profit, net of all costs.

In recent years, both radiata and eucalypt planting stock have been improved. It is expected to provide even higher net profit for growers. So, whether planting radiata or eucalypts, it may be preferable not to skimp on the cost of superior planting stock.

Ensuring the quality

Besides preferring genetically superior planting stock, which is more readily available now than in the past, it is also important to ensure the stock is in good condition. It must be healthy; free of disease, insects and damage;

sturdy, not lanky; hardened; has all leaves green; and with abundant active roots.

It may, however, be difficult to accurately figure out planting stock's overall quality, especially its genetic quality. One way of overcoming the difficulty is to choose the supplying nursery with care. Nurseries accredited by professional bodies, such as the Nursery Industry Association of Australia, can be expected to meet standards. But at present not all nurseries are accredited. Hence, to find a reliable nursery, it may also be helpful to talk with neighbours, members of local farm forestry network and advisers. Visit the nurseries recommended by them; talk with nursery production managers who should be professionally qualified and experienced persons. The choice of nursery must be made well in advance of planting time, for, all good nurseries require orders at least four to six months ahead of delivery date.

Bare-root seedlings and cuttings are usually used for planting radiata. If their seeds are from New Zealand seed orchards, they may have growth (G) and form (F) improvement rating number, for example GF14, that indicates the degree of genetic improvement. The higher the number the greater the improvement. Both seedlings and cuttings may be assigned a GF number.

Depending on the species, climate and time of planting, growers may choose either bare-root or container eucalypt seedlings. Container seedlings cost more but the extra expense may be justified to ensure better survival, faster growth and longer planting period.

Prices of planting stock

The prices can differ markedly depending on species, genetic quality of seeds and cuttings, size of order, distance from market, production efficiency of nursery and so on. Nurseries are competitive businesses, so it may also pay to shop around but without compromising on the quality of stock.

Tables 1 and 2 give indicative prices of seedlings and cuttings compiled in April–May 1998 from reputable nurseries in New South Wales. Table 1 shows prices of two species of eucalypt seedlings in 10 cm long tubes, raised from medium priced first generation seed orchard seeds. And table 2 has prices of radiata seedlings raised from orchard seeds and cuttings from selected pedigreed superior trees. The prices are on a per 1000 seedlings or

cuttings basis at nursery gate. Delivery costs an extra one to five cents a seedling or cutting, depending mainly on distance and volume.

1: Prices of eucalypt seedlings

Number	Eucalyptus globulus \$/1000	Eucalyptus nitens \$/1000
10 000 to 20 000	290	310
20 001 to 100 000	270	285
100 001 to 300 000	260	270

2: Prices of radiata pine seedlings and cuttings

Number	Seedlings \$/1000	Cuttings \$/1000
Less than 1 000	280	500
1 001 to 5 000	220	450
5 001 to 10 000	180	420
10 001 to 50 000	170	400
50 001 to 100 000	160	390
More than 100 000	140	350

Stumpage: Western Australia

Royalties and stumpage currently received by the Western Australian Department of Conservation and Land Management have come to hand. As there is widespread interest in stumpage, the WA data are reported now rather than hold them back for a later issue of the market report.

Table 3 shows the royalties and stumpage for selected types of logs. Hardwood log royalties are for the southern forest region. The range in royalties for the premium and third grade sawlogs arises from differences in species. For the first and second grade sawlogs, the range is due to differences in species and small end diameter of logs. Differences in species and their green or dry status explain the range for residue logs.

For softwood logs, the stumpage is for pinaster and radiata species in all forest regions. Regional differences account for the stumpage range for industrial wood.

Hardwood royalties have been operative since July 1997. However, stumpage for all softwood logs became operative since January 1998, except for industrial wood that has May 1995 as the operative date.

The royalties and stumpage are gross. That is, they consist of base royalties or stumpage and roading, inforest and administrative charges.

3: Gross royalties or stumpage, public forest logs, Western Australia

Hardwood, Southern forest region

Sawlogs:	\$/cu. m
Premium	101.18 to 101.47
First grade	42.12 to 51.65
Second grade	31.66 to 39.24
Third grade	23.70
	\$/t
Residue logs	11.64 to 14.86

Softwood, all forest regions

Veneer logs:	\$/cu. m
First grade	76.81
Second grade	58.07
Sawlogs:	\$/cu. m
Premium grade	63.36
Second grade	42.86
Third grade	30.26
Small	23.05
Other logs:	\$/t
Industrial wood	9.68 to 13.50

This market report is a trial initiative of the ANU Department of Forestry. It follows consultations with the Australian Forest Growers and other groups. Continuation of the initiative will depend on support for it. The Department invites comments and suggestions on the initiative and the report. Please address them to Dr U.N. Bhati, Department of Forestry, The Australian National University, Canberra ACT 0200; alternatively, fax them on (02) 6249 0746 or email un.bhati@anu.edu.au. This and the previous issues of the market report can be found on the Department's web page at: <http://www.anu.edu.au/Forestry/info/marketreport/index.html>.