

arrive at place of destination on weekends and public holidays. Also make sure of correct documentation.

If these rules are followed carefully, exporting plant material can be rewarding and profitable.

THE "SWISS ROLL" METHOD OF RAISING CUTTINGS AND SEEDLINGS

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Every nurseryman and plant propagator is looking for propagation methods which will be: cheaper, easier, more efficient, can utilize unskilled labour.

Potting young seedlings or rooted cuttings requires skill and dexterity which takes a long time to master. This new method fulfills all the above criteria and gives a consistently good result.

Pautti Nissula of the Forest Research in Finland used this idea for growing conifer seedlings and took out a patent. This system was further developed by the Merrist Wood Institute in the U. K. and it was from their system our nursery developed a technique for New Zealand conditions. We saw a big potential for rooting cuttings this way and this was the idea we developed.

The Method. A strip of polythene 4 metres long, 300 millimetres wide with a thickness of 50 microns is laid out on a bench 3.5 metres long and 12 mm thick with side strips of wood 300 mm apart. A 12 mm layer of rooting medium or potting compost is placed over the polythene and firmed by hand. It should come level with the top of the board. The roots of the seedlings or the cuttings are laid along the compost on each edge the roots facing inwards and the tops to the outside. The plants are spaced so as to give the correct distance apart when rolled up. The polythene is then carefully rolled up, keeping the bundle tight and firm. The end is fastened with polythene tape. An ordinary wood saw is used to cut the bundle of plants in two down the middle. Normally we have rolled up 30 plants each side giving 60 plants per roll. We count on each ½ roll to produce 25 saleable plants.

The advantages:

Costs — To raise 1,000 plants: plastic \$8.00 — pots \$40.00, assuming soil of propagating medium is the same in each case.

Time — To roll 50 plants: 5 min., a rate of 600 per hour.

Time — For potting, 200 per hour.

It is far less tedious, with less handling of small pots; a roll is equal to 25 pots in a box. Standing out ground is much less; high densities can be maintained even when well-spaced pots do not blow over.

Tightly rolled plants do not dry out as quickly, and need less watering; nutrients are not leached out so quickly and the plants do not become rootbound. When unrolled, plants have a fan-shaped root system and are easy to plant in a cleft made with a spade.

Cuttings, rooted cuttings, and seedlings of 34 different species and cultivars are currently under test using this method.