Announcement

EFF ENVIRONMENTAL FOREST FARMS

TESTING WESTERN AUSTRALIA GROWN PAULOWNIA - STABILITY AND STRENGTH TESTING

May 2007

Environmental Forest Farms commissioned a numbers of reports over the past 6 months to investigate and document the properties of Paulowna timber extracted from EFF Group's Nowergup Research Plantation.

The EFF Group supplied samples of *Paulownia fortunei* timber, specifically of the variety **'EFF1'** which is a registered variety under the Plant Breeder's Rights Act.

The Forest Products Commission of Western Australia ("FPC") tested the density and stability of the timber, whilst Structural Testing Services ("STS"), a University of Southern Queensland based organisation, tested strength properties.

The results of these most recent tests have been compared to the results of tests conducted in 2001 and 2002 by both the FPC and the University of Southern Queensland on Paulownia timber obtained from China and Queensland. The results and comparisons are detailed below.

Age

Table 1 shows the ages of timber used in the testing.

Timber Type	Age
WA Grown	6 years
QLD Grown	10 years
Chinese Grown	Unconfirmed

Table 1 - Age of Timber

Species

EFF used timber from the *Paulownia fortunei* species, specifically from the **'EFF1'** variety registered under Plant Breeder's Rights intellectual property law. Data obtained on Chinese grown Paulownia is specific to *Paulownia elongata*. The species of the Queensland grown Paulownia is unknown.

The EFF Group

The EFF Group of Companies is one of Australia's leading Paulownia organizations with experience in the establishment, plantation management, research and propagation of Paulownia trees. The Group own and/ or operate several Paulownia plantations in Western Australia, including four Managed Investment Projects, and thee private plantations.

Environmental Forest Farms Management Limited

Environment Forest Farms Management Limited
Level 1 AustAsia House, 412 - 414 Newcastle Street, West Perth WA 6005 • PO Box 332 Leederville, WA 6903
Phone (08) 9227 8422 Fax (08) 9227 8455 Email kpadmin@kiripark.com.au www.kiripark.com.au ACN 087 201 670

Density

The density of the timber was measured on two separate occasions. Firstly in 2001 on timber obtained from Queensland and more recently on timber grown in Western Australia. Data on Chinese grown Paulownia has been obtained from scientific journals.

Timber Type	Green Density	Air Dry Density
WA Grown	640kg/m3	330kg/m3
QLD Grown	-	260kg/m3
Chinese Grown	-	290kg/m3

Table 2 - Density of timber

The data shows WA grown Paulownia is slightly more dense than both Queensland and Chinese grown Paulownia.

Stability

Shrinkage of the Queensland and Western Australian timber was also measured on the two separates occasions. It is summarised in Table 3 below. Data on Chinese grown Paulownia is also shown:

Timber Type	Tangential Shrinkage	Radial Shrinkage
WA Grown	4.5%	1.5%
QLD Grown	6.8%	Not tested
Chinese Grown	4.4%	2.0%

Table 3 - Stability

Strength

The density of the timber was measured on two separate occasions. Firstly in 2002 on timber obtained from China and more recently on timber grown in Western Australia. No data on Queensland grown Paulownia timber is available.

Timber Type	Peak Stress	Flexural Modulus
WA Grown	52.88 MPa	5569 MPa
QLD Grown	Not tested	Not tested
Chinese Grown	20.9 MPa	3321 MPa

Table 4 - Bending Strength

Timber Type	Peak Stress	Shear Modulus
WA Grown	2.63 MPa	9.67 MPa
QLD Grown	Not tested	Not tested
Chinese Grown	2.91 MPa	9.3 MPa

Table 5 - Shear Strength

Conclusion

Timber obtained from the EFF Group's Nowergup Plantation in Western Australia of the species *Paulownia fortunei* and variety 'EFF1' performs better in all areas tested than both the Chinese grown and Queensland grown Paulownia timber.

The results of these tests lead us to conclude that Paulownia timber grown in Western Australia by the EFF Group and of the variety EFF1 can be used in all applications where Chinese grown timber is currently used and can be expected to perform as good and if not better in those situations.

Further analysis will be conducted to establish whether similar assetions can be made about trees that are not of the EFF1 variety, although the vast majority of trees grown by the EFF Group are clones of EFF1 obtained through tissue cloning.

Research and development into Paulownia timber and Paulownia timber products is carried out on a continual basis by the EFF Group and documented as part of the EFF Group's R&D Plan. Updates on research into the timber will be provided as they come to hand.