



## ECO2 International's Kiri Tree

Kiri is the Japanese word for Paulownia. ECO2's Kiri Trees use a derivative of lineal selection from a range of sub-species within the Paulownia family. Some of the more common names of these sub-species include Empress Tree, Sapphire Princess Tree, Princess Tree, and Kawakami Tree.

For ECO2, the know-how of which Kiri Tree variant to apply in each specific project, based on environmental, climatic, soil and geography, is vitally important and here the experience of its forestry consultants is paramount.

The Kiri Tree is a deciduous hardwood and has been developed over the last 20 years by our growing consultants. Extremely light in color and weight yet very strong, as well as pest and disease resistant, the Kiri Tree is the ideal sustainable alternative to most forestry projects. The Kiri Tree grows remarkably quick, typically growing 30-35 feet (10-12 meters) in the first growing season, as shown in the image on the right. After the first growth season, the leaves on a tree can grow to a meter wide, absorbing up to ten times as much CO<sub>2</sub> as other trees.

After 3-5 years, the Kiri reaches up to 65 feet (20 meters) on average. Often, depending on the planting matrix adopted by ECO2, every second tree will be harvested. This process allows the remaining Kiri Trees to receive more light and increase the thickness of their trunk.

Logged the Kiri Tree lumber of this age is used to build sustainable housing in local communities and can also be utilized to produce pulp and paper products.

Following this thinning process, the tree thickens its trunk to yield up to 2.5 cubic meters of timber after 7-8 years. Kiri lumber has a wide range of uses.

In comparison, typically the growth cycle of hardwood such as Oak in America is in the range of 60-80 years, and that of softwood (Douglas Fir) is about 75-85 years. The Kiri Tree can be routinely harvested in 7-year cycles to provide wood of suitable quality for many applications.

The Kiri Tree, after harvest, has the ability to regenerate from the stump (see right). The Kiri Tree then begins its seven-year growth cycle with an advanced root system already in place. This regenerative process removes the need for re-planting and dramatically reduces ongoing forest expenses.

The huge leaves of the Kiri Tree (see image to left) sequester 5-10 times more carbon dioxide than most other trees. This huge level of carbon sequestration will allow a single Kiri Tree, at full maturity, to have sequestered up to two and a half tons of carbon dioxide. The carbon sequestration generates carbon credits which form part of ECO2's revenue stream.

As global demand for timber, and in particular hardwood timber, continues to rise, and carbon emissions continues to become a critical part of everyday business, ECO2, with the International Forestry Plan and the Kiri Tree, is strongly positioned to capitalize on this demand as our Forestry network expands.

## ***ATTRIBUTES AND TIMBER QUALITY***

- **LIGHTWEIGHT** – Kiri Tree timber is comparable to the weight of balsa. It is ⅓ the weight of Oak and ½ the weight of Pine.
- **STRENGTH** – Balsa has been considered to have the highest strength to weight ratio of any wood in the world. The timber produced by the Super Kiri Tree is about twice as strong as Balsa and similar in weight.
- **COLOUR** – Consistently dries to light honey to blond in color.
- **GRAIN** – Beautifully grained with a silky, satin appearance.
- **MACHINABILITY** – The Tree is low in resin and free of volatile oils making it easily worked and molded.
- **JOINING** – Excellent adherence to glues and can be edged nailed without splitting.
- **FINISHING** – Accepts oil and spirit-based stains, lacquers, polishes and paints.
- **ATTRIBUTES** – Sound absorbent, rapid drying, excellent acoustic and insulation qualities, high strength to weight ratio. The wood is insect, rot and fire resistant

## ***KIRI LUMBER APPLICATIONS***

- After 3 Years:
  - Sustainable housing developments
  - Pulp Paper
  - Woodchip
  - Biofuel
- After 7 Years:
  - Building Furniture
  - cabinets Framing materials
  - Musical instruments
  - Pallets
  - crates and boxes
  - Vehicles, aircraft and marine construction

For more detailed information on Kiri Lumber uses please visit the [Lumber page](#).