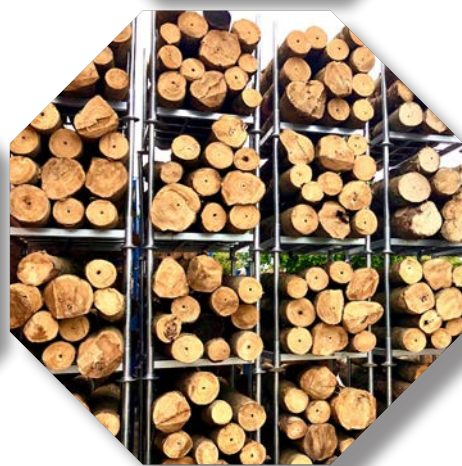




WeGrow  
CropTec

# KIRI – THE FASTEST TREE ON EARTH

## TIMBER PRODUCTION AND CARBON CAPTURE AT THEIR BEST



# WE SUPPORT YOUR KIRI PROJECT

## FROM PLANNING AND PLANTING TO THE HARVEST

We at WeGrow CropTec have been producing Kiri trees (*Paulownia*) for sustainable timber production since 2009. The Kiri tree is considered the fastest growing tree on earth. The peak growth can reach up to 6 meters within only one year! Its super light wood, which is in high demand, can be harvested and marketed after only 6 to 12 years, depending on the location.

As Europe's leading producer of Kiri wood, we are happy to pass on our many years of cultivation experience to our customers and help you to make your Kiri tree project a success, too. Within our Farming Partnership, we accompany our customers through the whole value-added chain – from the consultation of choosing the best growing site, the optimum cultivation methods to the purchasing and sale of the grown Kiri wood.

The CropTec business segment has been an integral part of WeGrow for over 15 years in the area of young plant production. Founded in 2009 as a spin-off company of the research area “renewable resources” of the University of Bonn, WeGrow is today considered the European market leader in the field of sustainable Kiri wood production.



### YOUNG PLANTS FROM THE ESTABLISHED EXPERT

WeGrow CropTec GmbH & Co. KG offers customers worldwide young plants of its own four developed and protected Kiri tree hybrid varieties (*Paulownia* hybrid varieties). With our extensive know-how in plant cultivation and plantation management, we support and advise our customers as a reliable partner in 50 countries worldwide.

### STATE-OF-THE-ART AND SUSTAINABLE

At the Tönisvorst site in Germany, WeGrow CropTec produces quality plants of the four Kiri hybrid varieties in a highly specialized in vitro young plant laboratory for customers around the globe. Regular phytosanitary analyses as well as professional rearing under special LED plant exposure systems always guarantee our customers a fast and reliable delivery of high-quality young plants of the WeGrow CUP® type. For our customers in Europe, we also produce WeGrow READY® here in our greenhouse facilities in Germany, a plant assortment that we have developed over 10 years of work for direct planting in the field.



FOUR METERS IN THREE MONTHS

# FOUR HYBRID VARIETIES FOR TEMPERATE, SUBTROPICAL AND TROPICAL CLIMATES

For more than 15 years, WeGrow has been researching with different species of Kiri trees (*Paulownia*). During this time, we have selected four different non-invasive Kiri tree hybrid varieties that are suitable for cultivation in different climatic regions and growing situations. Thus, you will find varieties for cultivation in temperate latitudes, the subtropics and the tropics. We also offer the right variety for wind-exposed sites and dry locations.



## NordMax21®

THE PROVEN CLASSIC FOR COLDER CLIMATIC REGIONS

Our NordMax21® variety is dominated by the straight and homogeneous stem growth of *Paulownia fortunei*. By crossing a particularly frost-hardy species, trees of the NordMax21® variety also have a high cold resistance and wide site tolerance.

To achieve the highest wood qualities, technical cut and pruning of the side shoots should be carried out in the second year of cultivation. The WeGrow variety NordMax21® achieves very high and reliable yields also in warm regions.

CPVO variety protection number: EU 47334

- Frost hardiness down to -22 °C (depending on age, cultivation and weather conditions)
- Wide spreading crown
- Pronounced attractive flowering
- Harvest possible after 6 to 12 year

Recommended planting scheme:

- Planting distance 5 x 3 m (660 trees / ha), after intermediate harvest 5 x 6 m
- 5 x 5 m (400 trees / ha) without intermediate harvesting

## Phoenix One®

OUR FAVORITE FOR MILD CLIMATE

This cross between *Paulownia elongata* and *Paulownia fortunei* is our strongest growing hybrid variety. Due to its thick, fleshy leaves and compact growth, the WeGrow variety Phoenix One® is also suitable for cultivation in rather wind-exposed locations.

Special characteristics are the fast and cylindric stem growth as well as the narrow and compact crown, which allows a planting density of up to 825 trees / ha.

CPVO variety protection number: EU 39980

- Particularly narrow crown
- Frost hardiness down to -10 °C (depending on age, cultivation and weather conditions)
- Harvest possible after 5 to 10 years
- Suitable also for more wind-exposed sites
- No technical cut necessary

Recommended planting scheme:

- 4 x 3 m (825 trees / ha), after intermediate harvest 4 x 6 m
- 5 x 3 m (660 trees / ha), after intermediate harvest 5 x 6 m
- 5 x 5 m (400 trees / ha) without intermediate harvesting



## H2F3®

ALSO SUITABLE FOR DRY SITES

Our variety H2F3® is the first choice for dry sites. This cross of *Paulownia catalpifolia* and *Paulownia fortunei* has a very high root-to-shoot ratio. In addition, the leaf surfaces are covered with fine hairs. The resulting reduction in transpiration rate and the high root-to-shoot ratio enable the H2F3® variety to withstand prolonged periods of drought. This variety forms no or very few lateral branches in the first year of cultivation. This reduces the amount of care required and significantly increases profitability.

CPVO variety protection number: EU 57858

- High drought stress tolerance
- Frost hardiness down to -20 °C (depending on age, cultivation and weather conditions)
- Medium spreading crown
- Harvest possible after 6 to 12 years
- No technical cut necessary

Recommended planting scheme:

- Planting distance 5 x 3 m (660 trees / ha), after intermediate harvest 5 x 6 m
- 5 x 5 m (400 trees / ha) without intermediate harvesting



## H2F4®

EXTREMELY FAST GROWTH AND ALMOST KNOT-FREE

Characteristics of our latest breeding are the extremely fast growth in height and the very straight and homogeneous stem growth. Our cross of *Paulownia catalpifolia* and *Paulownia fortunei* does not form side branches in the first year of cultivation. This reduces the maintenance effort and increases the profitability significantly. We recommend cultivation in wind-protected locations.

CPVO variety protection number: EU 54916

- Frost hardiness down to -20 °C (depending on age, cultivation and weather conditions)
- Medium spreading crown
- Harvest possible after 6 to 12 years
- No technical cut necessary

Recommended planting scheme:

- Planting distance 5 x 3 m (660 trees / ha), after intermediate harvest 5 x 6 m
- 5 x 5 m (400 trees / ha) without intermediate harvesting

# KIRI TREE YOUNG PLANTS

## THE ASSORTMENT FOR WORLDWIDE SHIPPING

WeGrow produces all young plants of its own non-invasive Kiri tree varieties (*Paulownia*) in an in vitro process under sterile laboratory conditions. The vegetative propagation with micro cuttings guarantees the high quality of young plants that our customers appreciate.

### FROM THE LABORATORY IN GERMANY TO THE WHOLE WORLD

In our in vitro laboratory in Tönisvorst, Germany, we produce Kiri tree young plants for temperate, subtropical and tropical regions. The highest phytosanitary standards guarantee young plants of the best health. The in vitro process is clearly superior to other methods, such as propagation from seed and root cuttings. While plants grown from seeds lead to very uneven growth and undesirable genetic traits on plantations in terms of frost hardiness, straight stemness and wood yield, the elite plants from in vitro propagation guarantee the highest qualitative characteristics. At this point we would like to strongly advise against propagating plants via root cuttings. This is because pathogens con-

tained in the roots, such as phytoplasmas, can thus be transferred to new areas of cultivation. In contrast, Kiri trees propagated by the in vitro method are not only germ-free, but also absolutely pure. This guaranteed high-quality genetics is the basis for the subsequent high timber yield on the plantation. We produce two different assortments in our young plant laboratory.

### OUR ASSORTMENTS FOR WORLDWIDE SHIPPING

WeGrow offers Kiri young plants in two different assortments - adapted to the different transport requirements and the regulations of the importing countries. All deliveries are provided with a valid plant passport. Phytosanitary certificates can also be issued upon request.

## YOUNG PLANT EXPORT TO 50 COUNTRIES

TO DATE, WE HAVE ALREADY EXPORTED OUR YOUNG PLANTS TO 50 COUNTRIES WORLDWIDE.



## WeGrow READY®

FOR OUR EUROPEAN CUSTOMERS

Our plants of the WeGrow READY® assortment are suitable for direct planting in the open field. They are produced exclusively for the short transport routes to our European customers. The young plants are delivered with well-developed root balls and are about 15 to 20 centimeters tall at the time of delivery. The root ball height is 10 cm.

Due to the propagation in our in vitro laboratory and the hardening off in greenhouse, foil tunnel and open land, the plants have the best characteristics for a high-yield cultivation.

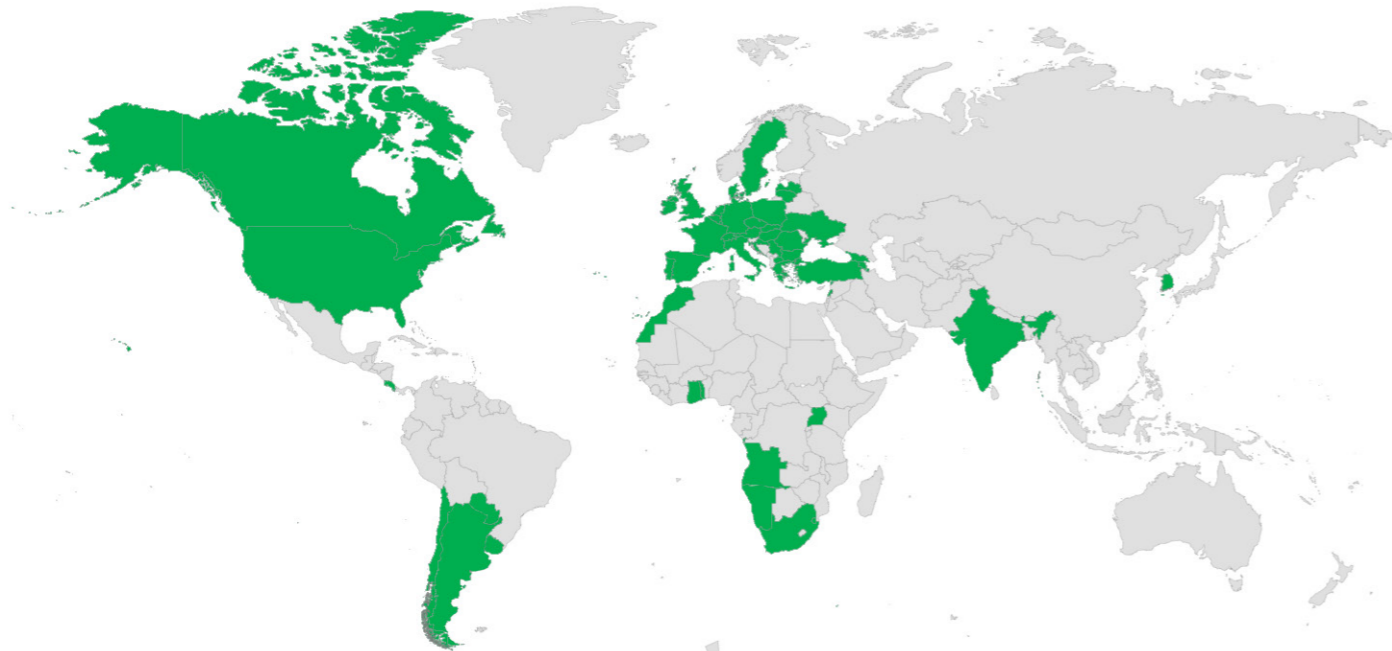
- Healthy and homogeneous roots thanks to root airpruning
- Vital root system enables rapid growth in the field
- Lighting and nutrient management tailored to Kiri young plants result in a strong and compact main shoot
- Several-day outdoor phase to harden the foliage against UVA and UVB radiation
- Optimum Kiri young plants - from root to foliage

## WeGrow CUP®

FOR SAFE WORLDWIDE SHIPPING

Specifically for worldwide shipping, we offer the WeGrow CUP® product range. In this system, young plants are shipped sterile in cups, directly in our self-produced nutrient solution. At the time of dispatch, plants from the WeGrow CUP® range are approximately 2 to 3 centimeters tall. Within the nutrient solution, they have already developed a strong root system. Thanks to our precisely coordinated lighting management, the plants form a vigorous main shoot. This ensures top quality with low shipping costs and easy handling for further cultivation.

- Healthy and homogeneous plants directly from the plant laboratory
- Require 3 to 6 weeks of greenhouse cultivation in the destination country
- Comply with all requirements of strict import regulations
- Sustainable and cost-efficient shipping with up to 25,000 plants per pallet





## SUSTAINABLE TIMBER PRODUCTION OUTSIDE NATURAL FORESTS

WeGrow recommends growing Kiri trees in three different land use systems. In addition to cultivation in timber plantations, these are agroforestry systems and mixed afforestation.

### SUSTAINABLE HIGH YIELDING PLANTATIONS

In sustainably managed Kiri plantations, Kiri trees offer the advantage over other plantation woods of producing marketable log assortments in significantly shorter production cycles. The Kiri tree varieties selected according to site conditions are grown in a planting system optimized for timber yield. A high degree of mechanical automation enables a significantly more efficient and economical form of industrial and sustainable wood production compared to traditional forestry. The annual timber growth and the achievable yields are usually significantly higher than those of conventional timber production in forests as well as common agricultural crops. In Europe, Kiri tree plantations established on agricultural land are usually considered an agricultural crop.

### ADVANTAGES:

- High timber yields outside the forest reduce utilization pressure on natural forests.
- Substitution of tropical wood reduces utilization pressure on tropical forests
- Ecological upgrading of previously agriculturally used cultivated areas
- Up to 4 times higher CO<sub>2</sub> sequestration compared to mixed forests
- Erosion control, as intensive rooting holds the soil in place and allows water to drain more quickly into the soil during heavy rains
- Increased soil fertility due to rapid humus build-up and the tapping of nutrients from deeper soil layers
- High economic efficiency
- Reduction of soil temperature and reduction of water evaporation
- Agroforestry systems are also possible

## ROUND TIMBER HARVESTING POSSIBLE AFTER JUST 4 YEARS

The management of Kiri tree plantations can follow two different strategies depending on the objectives. In general, a distinction is made between plantations with planned intermediate harvests and those without intermediate harvesting. Both systems aim to produce high-quality Kiri timber with marketable stem dimensions, but they differ significantly in planting density, growth dynamics, and harvesting timelines.

### PLANTATIONS WITH INTERMEDIATE HARVESTING

In Kiri tree plantations designed for intermediate harvesting, trees are deliberately planted at higher densities, typically at around 800 trees per hectare. Like many other plantation operators, WeGrow also applies this plantation management approach on its own sites.

Kiri trees develop faster, more uniformly, and with straighter stems when grown in closer proximity. The increased competition among trees promotes a favorable microclimate, characterized by higher air humidity, improved water balance, and enhanced wind protection.

After approximately four to five years, an intermediate harvest is carried out, during which every second tree



is removed. From this point onward, the remaining stand benefits from significantly improved light availability as well as enhanced water and nutrient supply. The growth-promoting competition present in the early phase is thus deliberately reduced.

After a further three to five years, trees with a diameter at breast height (DBH) of approximately 40 to 50 cm can be harvested as part of the final harvest.

### PLANTATIONS WITHOUT INTERMEDIATE HARVESTING

When Kiri tree plantations are established without intermediate harvesting, planting is carried out at lower densities, usually at around 400 trees per hectare. Typical planting spacings are 4 × 6 meters or 5 × 5 meters. In this system, no targeted thinning takes place during the growth phase.

Within a period of approximately nine to twelve years, this plantation management approach can also produce trees with a DBH of 40 to 50 cm, which are then harvested in the final harvest. This model is characterized by simpler management but requires a longer rotation period until final harvesting.





## IN HIGH DEMAND SECURE SALES FOR YOUR HARVEST

The global area of natural forests has decreased by around 300 million hectares (7.2 %) between 1990 and 2020. On the other hand, global demand for wood is forecast to increase by 37 % between 1990 and 2050. The cultivation of fast-growing kiri trees is an efficient solution to meet the increasing demand for wood sustainably without clearing or overexploiting natural forests.

### WE BUY YOUR WOOD

When selling wood, you can play it safe right from the start. If you wish, you can opt for the WeGrow timber buy-back at the start of the cultivation partnership guaranteeing the sale of the harvested wood. This way you already know the fixed price

you will receive per cubic metre harvested. Your fair, individualised conditions are defined as part of a framework agreement on the cultivation partnership.

## AREAS OF APPLICATION FOR INTERMEDIATE HARVEST CONSTRUCTION

### KIRIBLOX® – MODULAR, SUSTAINABLE TIMBER CONSTRUCTION

KiriBloX® is an innovative, modular wall construction system made entirely from 100% Kiri wood and designed to function without adhesives or metal components. The individual modules are securely and precisely connected using accurately milled wooden dowels.



The vertically oriented, octagonal Kiri wood profiles enable a stable yet flexible construction method, allowing for a wide range of wall thicknesses, heights, and complete building geometries. Thanks to its excellent thermal insulation properties, natural fire resistance, and exceptional dimensional and shape stability, the system is suitable for a broad spectrum of applications—from residential and commercial buildings to vertical extensions and innovative interior design solutions.

KiriBloX® uses sustainably grown Kiri wood sourced from agroforestry plantations, reduces raw material consumption and waste, and, through its modular design, provides a circular, resource-efficient alternative to conventional construction methods. At the end of its service life, the modules can be dismantled at any time and reused, further minimizing the system's ecological footprint.

More information: [www.kiriblox.eu](http://www.kiriblox.eu)



## AREAS OF APPLICATION FOR MAIN HARVEST MOBILITY, LIVING AND LIFESTYLE

Kiri wood, particularly when processed into ultra-lightweight multilayer veneer panels (plywood), offers significant potential across several rapidly growing market segments. Due to its exceptional weight-reduction potential compared to conventional panel materials, kiri-based materials could, for example, reduce the weight of a caravan by up to 140 kg. Accordingly, Kiri wood is in demand in vehicle construction across all modes of transport—road, rail, maritime, and aviation.



In the living and lifestyle sector, Kiri wood also meets the highest material requirements: it is odorless, resin-free, and does not splinter or crack. This makes it particularly well suited for sauna construction and sauna benches, with strong potential to substitute traditional woods such as abachi, which is commonly sourced from tropical rainforests. In addition, Kiri wood is used in a wide range of decorative interior applications as well as in the sports equipment sector, including the construction of sports boats, skis, surfboards, and snowboards, where its combination of low weight and high structural strength is especially advantageous.

More information: [www.kiritec.eu](http://www.kiritec.eu)





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