

## Corporate Fact Sheet

TreeFree Biomass Solutions Inc. (TBS) provides cost effective solutions for the biomass market place. TBS has spent 12 years partnering with research organizations, scientists, and Universities to establish a **closed loop biomass crop** that is superior to existing biomass options. What sets TBS apart from other biomass companies is that TBS has targeted Arundo Donax as a centrifuge for it's patents due to it's many superior uses in industry crops and multitude of end users in markets spanning the globe.



*We can deliver feedstock to a diverse group of major industries to use Nile Fiber™ as a component in the production of products like pulp and paper, bioenergy, building & composit materials, sugars, forage, cosmetics, biochemicals, and biofuels.*



Nile Fiber™ under optimal conditions.

## BUILDING SUSTAINABLE AGRICULTURAL SYSTEMS

Using our patented technology, per acre biomass production yields can be increased 15 times that of equivalent acerages of tree crops. We can design a sustainable agriculture system specifically for a multitude of industrial uses. This represents a clear winner in the industry and a clear choice over the use of trees. Nile Fiber™ never needs replanting and will continue to grow indefinitely, allowing the harvesting process to be repeated every 9-12 months. This results in substantially reducing labor costs to the farmer and less acres needed under cultivation. Nile Fiber™ can grow up to 30 feet in height in less than one year under optimal conditions, or almost 5" a day. Nile Fiber™ is clear choice as a green renewable crop and a hard wood replacement in the industry.

TreeFree Biomass Solutions Inc. spent the last 12 years researching Arundo donax as a sustainable biomass feedstock. In addition to confirming Nile Fiber™ as a replacement for wood fibers in producing pulp and paper, TreeFree discovered additional applications in other major industry sectors. TreeFree owns or controls an intellectual property portfolio of Nile Fiber™ products and processes. After over a decade of research and development, Treefree is in the initial stage of commercializing its first line of products.

Our products include our proprietary plant cultivars, on site infrastructure development as well as supply, delivery and logistics of our feedstocks. TreeFree produces Nile Fiber™ cultivars, plants that have specific growth characteristics and specialized end uses. Nile Fiber™ also grows and harvests our crops. We have the technology to plant, grow, harvest and deliver this feedstock in a most competitive manner to end users anywhere in the world.

TreeFree produces Nile Fiber™ cultivars, plants and grows Nile Fiber™ grass, harvests Nile Fiber™ crops, prepares Nile Fiber™ raw biomass feedstock in the form the end-user requires and delivers it to the end-user. TreeFree is forging relationships with government, community, University, and public and private companies to launch an aggressive effort to confirm and develop Nile Fiber's™ potential as a critical part of the solution to energy dependency, replacing fossil fuels, protecting, enhancing and sustaining the environment and provide economic development opportunities for rural communities.



## 2000-2011 MILESTONES

- \$100,000 DOE grant with Auburn University
- Established test growing plots at Auburn University
- 1st Commercial pulp trial at Samoa pulp mill
- 2nd Successful commercial trial at Samoa pulp mill
- Established test growing plot at WSU
- Patent issued on pulp, paper, composites
- Development of a nodal propagation system
- Established propagation research center at Machias, WA
- Development of a low cost micro ramet propagation system
- \$400,000 Grant funded by **UW, DOE, EPA**
- Established propagation research center – Kona, HI
- Selection of elite, productive cultivars and ecotypes of Nile Fiber™
- Developed system for planting large acreages
- Proof of concept: using patented propagation system
- Patent filings to expand pulp, paper, composites
- Patent filings based on feedstock propagation
- Patent filing based on chemical extraction
- Received exclusive license for **UW** yeast and xylitol
- Successfully removed multiple acres of Nile Fiber from a farm in Touche, WA proving easy of crop removal
- Development: large propagation facility Hamakua Coast, Hawaii
- Successfully planted 17 acres in South Carolina
- Shipping Capacity of planting materials for thousands of acres a month
- Our propriety propagation method is capable of producing exponential platelets is 6 week cycles

**WE DELIVER  
FEEDSTOCK.**

**NILE FIBER™**  
ONE PRODUCT, MANY SOLUTIONS.

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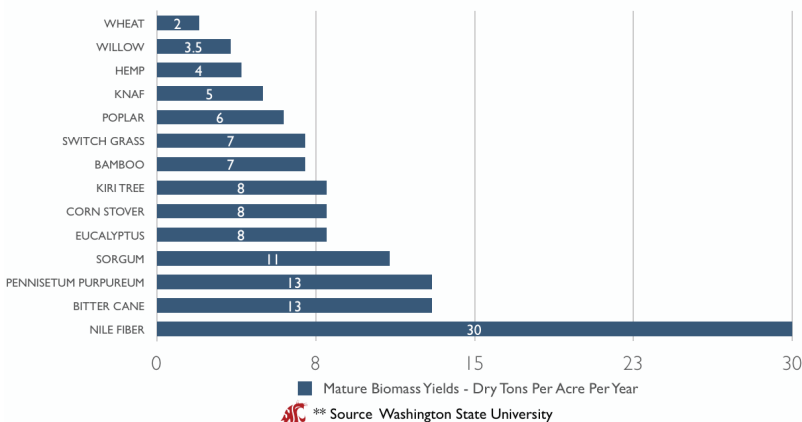
## SUSTAINABLE FEEDSTOCK SYSTEMS

**About Nile Fiber™** - Nile Fiber™ is truly a remarkable plant. It is a perennial grass that grows so vigorously it can be harvested annually. When grown as a crop it drastically reduces soil erosion compared to annual crops, because annual plowing and seeding are not necessary. Nile Fiber™ is a fast growing grass that proliferates during the warm seasons of the year. During colder months it becomes dormant and in this state it is able to survive temperatures well below freezing. It also returns essential nutrients to the soil.

**Environmental Benefits** - Nile Fiber™ offers many environmental benefits. First and foremost, its use for pulp, paper and building materials will reduce the threat to ancient indigenous forests, thus preserving some of the most valuable and unique treasures of the world. Secondly, it appears that this plant is resistant to pests and diseases, and requires little or no fertilizer. Therefore, use of pesticides, herbicides and large amounts of chemical fertilizer is considerably reduced, along with the associated environmental hazards.

### Competitive Outlook Biomass Yields

Nile Fiber is the highest yielding most cost effective, non-food biomass available.



**The Advantages of Nile Fiber™** - Finally, due to its very rapid growth (rates of 4-6 inches per day are common in the growing season), Nile Fiber™ is one of the most efficient plants available for removing carbon dioxide from the atmosphere and "fixing" it into plant tissue, above and below ground. This process is known as carbon sequestration, and it is fundamental to the mitigation of global climate change currently induced by excessive combustion of fossil fuels.

TreeFree is forging relationships with government, community, universities, public and private companies to launch an aggressive effort to confirm and further develop Nile Fiber's™ potential as a critical part of the solution to energy dependency, replacing fossil fuels, protecting, enhancing and sustaining the environment and provide economic development opportunities for rural communities.

Our production systems offer us the opportunity to accommodate feedstocks needs to a diverse group of industries such as, liquid biofuels, materials used for thermal conversion into electrical energy, low impact, sustainable pulping material for use in paper manufacturing, building materials and many other uses. Many future uses are being developed which will maintain high demands for this crop. Such future uses will be in bioplastics, chemical extracts, manufacturing of fertilizers and pharmaceuticals.

## NILE FIBER™

ONE PRODUCT, MANY SOLUTIONS.

### NILE FIBER™ FACTS

- Inexpensive propagation**, as much a 60% less than other techniques with great survivability and more plants per acre.
- Using standard planting and harvesting techniques.
- Yields per acre exceed other bio mass plants by as much as **300%**
- Adaptable** to many industries, energy, fuels, glycol's, pulp and paper, composite boards, phytoremediation, carbon sequestration.
- Ability to propagate **thousands of acres** at a time.
- Sustainable** - Low impact, Self-Sustaining Yields
- Grows on Marginal Land.
- 0% Displacement** of food crops on agricultural acreage
- Harvest on Demand** - Only Harvest the acreage you need when you need it.
- High Yield with ambient rain fall.
- Minimizes crop soil erosion
- High Value Forage** - Forage for Cattle (9% -14% crude Digestible Protein)
- Low Cost of Planting & Harvesting
- Localized Economic Investment** - Keeping your Community dollars in your Community.
- Localized Job Creation** - Creating family wage jobs for the Community.
- Carbon Negative** - Removes carbon from the atmosphere.
- Minimal fertilizer or pesticide required