

# Arundo

High quality planting material

Low-cost low-input cultivation

No biohazard or health risk

Multiple industrial uses

## **A PROMISING NEW CROP FOR THE BIOMASS INDUSTRY**

Recently, the University of South Carolina developed and patented technology for the industrial scale propagation of giant reed *Arundo donax L.*, the most promising biomass crop plant for diverse climatic regions.

Arundo Cellulóz Farming LLC is the sole licensee of the technology. The sustained embryogenic plant cell culture can form somatic embryos *in vitro* and plantlets can be mass produced by this patented technology.

These somatic embryo-derived plants, are made available for the biomass and green energy industries at a competitive price both locally and globally.

## WHY ARUNDO DONAX?

### Multiple industrial uses

- High biomass yield -to 20-55 dry tonnes/ha/ yr - for over 25-30 years
- Energy content: equivalent to wood (on dry mass basis)
- The only biomass crop that has positive energy balance when used for energy production, renewable resource, no net CO<sub>2</sub> emission
- Excellent pellet, “bio-bricks”, biochar, torrefaction material, pulp and fibre
- Biomass source for biogas plants of all sizes
- Improves soil quality with phytoremediation applications (oil spills, agrochemical residuals, organic pollutants, heavy metals, etc. )
- Wastewater and sewage sludge treatment of small settlements and larger regions

### Low-cost low-input cultivation

- Regular agro-technology and harvesting
- Perennial: no annual tillage or replanting is required
- No specialized pests, no pesticides
- Fast growing, and because of the size, no herbicide treatment is required
- Can be stored as a stand, low fire hazard (retains >50% moisture)
- Can also be grown on marginal land (tolerance to salt, high and low pH)
- Eliminates excess water but survives draught
- Prevents soil erosion
- Habitat for wildlife, but no damage
- Empty cell mass harvested at the end of the growing season, all mobile nutrients sequestered into the rhizomes
- Low fertilizer requirement

### No biohazard or health risk

- Not invasive: no seeds - no aggressively spreading rhizomes, proper agrotechnology is available for containment and elimination.
- No environmental risks for international markets: the propagation material is free from any viruses, pests and pathogens.
- No pollen, no allergen production
- No GMO, ethical or biohazard risk

### High quality planting material

- High-tech mass micropropagation
- Uniform, high quality plantlets
- Scalable for large industrial projects
- Flexible capacity, optional on-site production and consumer specific service.

## WHAT IS THE SOMATIC EMBRYO-DEIVED PLANT?

### The plant

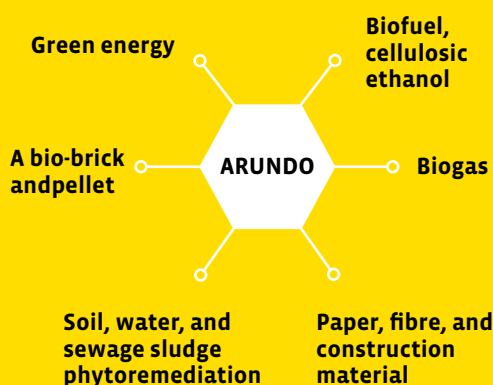
- Robust shoots and huge root mass
- Intense photosynthesis
- Outstanding annual biomass yield
- Pollen-free, seedless, and non-invasive new crop

### The technology

- Embryogenic cell culture
- Somatic embryo derived plantlets
- Plantations
- Elite varieties

## RENEWABLE GREEN ENERGY FROM CELLULOSE FARMING

Areas of Industrial Application



## INFORMATION & AVAILABILTY

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