

# Wild Grass Disposable Drinking Straws - made 100% from Nature

## What comes after plastic?



Disposable straws made of plastic and bioplastic (i.e. chemically modified bio-polymers, like PLA) are not permitted in Europe from July 2021.

Are we now dependent solely on paper straws? Not necessarily. In fact, there are many types of drinking straws in the market: e.g. those made of pasta, wheat, sugarcane, rice, wood chips, coconut etc., as well as reusable straws like those made of metal, glass or bamboo.

Our straws are made from **wild grass** growing in the Mekong Delta, also known as grey sedge. They combine the benefits and usability of plastic straws with a fully sustainable approach to the environment.

## What are grass straws?



*Lepironia articulata* grass is a sedge that grows in the wild across south-east Asia. It has a rigid structure, which makes it an excellent material for straw production.

The grass is harvested, thoroughly cleaned and cut to the required length. It is then triple washed in salted water, dried at high temperatures in an oven and sterilised by UV light. Finally, ready straws undergo a quality control and are packed in paper boxes or paper bags.

No chemicals or preservatives are used in the production process.

*More details about the wild grass and the production process can be found here:*



## Local rural communities development



The wild grass straws are produced in small, family-owned plants in Long An province in Vietnam. The grass is hand-picked by the local people. These farmers and their families often rely entirely on the income from selling various *Lepironia* grass products.

The production of straws helps conserving the *Lepironia*-rich wetlands. In the future, this area may be severely affected by the climate change. Therefore maintaining wetlands in their natural state is of great significance. Because producing wild grass straws also improves the livelihoods of the villagers, this is a great example of integrating ecosystem conservation and poverty reduction in the wetlands.

## Sizes and purposes



### Standard straws 200 mm

used for highballs, long drinks, soda cans



### Short straws 150 mm

used for tumblers, short drinks



### Long straws 250 mm

used for drinking directly from the bottle

All straws are 4,5÷8 mm in diameter, similar to plastic straws.

## Grass straws benefits



### Benefits for the users:

- they do not soften or get soggy
- they keep their shape and stiffness in both hot and cold drinks
- ideal for water, carbonated drinks, juices and alcoholic beverages
- they are suitable for vegans, gluten-free, lactose free

### Benefits for the environment:

- they fully decompose in the natural environment (no need for industrial composting!)
- they are processed naturally (no chemical treatment nor preservatives)
- the production process does not affect the ecological balance and is harmless to the environment

Their environmentally friendly origin and natural look create a positive product image among customers across the food and beverage industry.

## Peer comparison



### Paper and wax straws:

- cause discomfort when drinking, get soggy
- environmentally harmful production process
- carbon footprint higher than plastic

### Wheat / rye straws:

- not rigid enough, easy to damage
- small diameter causes uncomfortable drinking (need to use at least two straws at a time)

### Sugarcane, wood chips straws:

- very often such „ecologically sounding” ingredient is only a small additive, while the main component (up to 90%), is bio-plastic (like PLA). They are in fact plastic straws and should be banned as such from July 2021.

### Reusable (metal, glass, bamboo):

- require cleaning
- do not feel hygienic

## Packaging



### Standard (Highball) straws:

- boxes of 500 pcs (like above) with required information and a barcode
- 24 boxes per outer carton 60x40x40
- 20 outer cartons per pallet



### Small (Tumbler) straws:

- paper packs of 500 pcs with required information and a barcode
- 30 packs per outer carton 60x40x40
- 16 outer cartons per pallet



### Long straws:

- paper packs of 500 pcs with required information and a barcode
- 19 packs per outer carton 60x40x40
- 16 outer cartons per pallet

## Summary



Hygienic, environmentally-friendly, waterproof, easy to use grass straws are the best replacement for plastic straws.

They have excellent shelf life, retaining both mechanical parameters and sterility even after many years of storage, which is confirmed by the results of food contact tests.

The availability is still much smaller than paper straws, but it's growing fast. Our current capacity is 5 million grass straws a month (20 pallets). We expect four-to-five times higher numbers within 1-2 years.

In the near future, we will also start using retail boxes (50-100 straws) and we will also begin to pack straws in paper sleeves.