

PA #26 BioRural success stories: Staramaki: drinking straws made from natural wheat stems

Staramaki is a Social Cooperative based in a rural region in the North of Greece, in the area of Kilkis. Set up in 2019, Staramaki utilises a by-product of wheat cultivation, to create a viable eco-friendly alternative to single-use plastic straws. At the same time, the social economy initiative creates employment opportunities for vulnerable groups of people, promotes social cohesion, as well as local and regional development. Staramaki incorporates both environmental and social objectives, supporting the circular economy by capturing value from agricultural waste in order to produce a useful biomaterial.

The production process is for the most part manual, although the cooperative aims to automate its processes in the near future. The harvested wheat undergoes trimming, washing, sterilising and drying in order to be turned into drinking straws. The end product comes in different lengths and widths to suit all drinking needs. Notably, the material – wheat – does not alter the taste of the drink and the straw does not melt, as opposed to other available alternatives, presenting a viable solution to the multifaceted issues posed by single-use plastic straws.

The inherently circular business model of Staramaki is further enhanced by actions taken by the cooperative in order to close the loops of production. The resulting residue from the production process is used by a local horse-riding club as animal bedding and is then returned back to Staramaki, who apply it in their wheat fields as fertiliser. This natural fertiliser is enhanced by coffee waste, which is collected from cafés in the region, and mixed with the straw's production waste to create a more holistic fertiliser and soil enhancer. Staramaki, in all its efforts, aims to engage the local society in adopting ecological behaviors and reducing their waste, changing people's mindsets about what waste is by highlighting its value and its potential.

The specific production plant is highly replicable in any area that has wheat cultivation. Given that drinking straws are an everyday habit and that the available alternatives are not liked by consumers, the potential for natural wheat straws is great. Although their cost remains high, the environmental and social benefits that such an initiative brings are evident; an output - the agricultural residue from wheat harvesting - is utilised as an input in order to produce a new product in a socially cohesive manner. Staramaki exemplifies a circular bio-based solution, creating added value and contributing positively to both local communities and the planet.

This replicable initiative demonstrates the universal potential of natural wheat straws, offering both environmental and social benefits, showcasing a circular bioeconomy in action.

