

LASER MARK

Creating market demand for fruits labelled ecologically with innovative laser technologies

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INFORMATION ON THE ECO-INNOVATIVE SOLUTION PROVIDER

This eco-innovative solution is the output from the project titled “LASER MARK - CREATING MARKET DEMAND FOR FRUITS LABELLED ECOLOGICALLY WITH INNOVATIVE LASER TECHNOLOGIES (LASER MARK)” co-funded by the European Commission within the framework of the Competitive and Innovation Program. This solution has been developed by a team coordinated by LaserFood (ES), in partnership with MAXFRUT S.L, (ES), JSV Sistemas RDIF S.L, (ES), Fundación Comunidad Valenciana-Región Europea, (ES), Black Country Learning Academy Ltd, (UK). The project was finalized in 2013.

SHORT DESCRIPTION OF THE ECO-INNOVATIVE SOLUTION

LASER MARK proposes an alternative for labelling fruits and vegetables, replacing paper stickers and reducing the associated environmental impacts. This new process consists of marking the fruits and vegetables with a substance that turns coloured when activated by a laser. This process has multiple environmental benefits in terms of the reduction of waste of resources such as ink, plastic, glue or paper. In addition, this technology significantly decreases the costs for labelling and it speeds up the labelling process. Each individual fruit can be labelled separately without harming the quality of the product. The Laser Mark is permanent and allows full traceability of the product.

INDUSTRIAL SECTOR – MARKET SEGMENT AND ACTUAL APPLICATION IN INDUSTRY

01 Agricultural Production - Crops

INDUSTRIAL CLASSIFICATION - NACE CODE;

28 Manufacturing of machinery and equipment n.e.c.

1. DESCRIPTION OF ECO-INNOVATIVE SOLUTION

Technical aspects of the eco-innovative solution

The core element is equipment for labelling fruits and vegetables. The unit is ready to install and can be operated under normal operating conditions. There are different sizes available, depending on the number of pieces to be labeled per hour. The machinery conforms to European standards and regulations and has been installed around 25 times worldwide. Fruits and vegetables labeled by the equipment, comply fully with food safety regulations. The technology has no impact on food safety or on the integrity of the product.

Economic and environmental benefits of the eco-innovative solution

Costs of the solution; approx. 80,000€ for equipment with a production capacity of up to 7,200 pieces/hour
ROI (economics): After installation, labeling is practically free of costs (despite the energy consumption), so ROI depends on the number of units to be labeled.

The solution is an alternative to existing labeling systems:

- Reduction in paper waste. 100% of the total used previously
- Reduction in plastic waste. 100% of the total used previously
- Reduction in glue waste. 100% of the total used previously
- Reduction in energy consumption: 35% of the standard production consumption

2. AVAILABILITY OF THE ECO-INNOVATIVE SOLUTION AND BUSINESS PARTNERSHIP

Market readiness, Trade mark, existing market coverage, commercialization strategy

The equipment is already in use and installed 25 times worldwide. The Laser Mark technology was approved in 2013 by the EU in its Regulation 510/2013. It is also authorized for use with organic produce

Trade mark available: Laserfood

Requirements to adapt the solution to the local market and potential applications/market size

No requirements for adaptations; solution can be installed easily

On-site after-sales services support and the technical assistance requirements

Little maintenance; software can be maintained online

Targeted local business partners

Packing stations; exporters of fresh fruit and vegetables

Type of local business partnership sought

- Direct selling to packing stations (exporters)
- Sales representatives