

#92-21-CATLRJ

Technology

Machinery with Territorial Impact

Equipment for Fermentation-Aerated Fermentation of Organic Black Olives



Regional Center: Catamarca-La Rioja Catamarca Daniel Cabral Ortiz
cabralortiz.daniel@inta.gob.ar

Industry Laboratory

Olive Production Health

#olive | #black | # natural | #darkened |#air |#organic |#olive tree |#olives
|#fermentation| #table olive |#aireation

<https://www.argentina.gob.ar/inta/tecnologias/aireacion-de-aceitunas-negras-al-natural-0>

The production process of black olives at Family Farm scale includes the layout of the fruit and exposure to sunlight in order to reduce bitterness and accelerate the oxidation process by the action of the Polyphenol Oxidase (PPO) enzyme. In order to avoid this step, called layout -a critical contamination point-, and the quality loss due to softening by impact, a tool is required that enables to achieve fermentation and bitterness reduction under controlled conditions.

The Aimogasta Rural Extension Agency developed a technology that replaces the layout stage in the traditional processing of natural black olives. This piece of equipment executes a fermentation and aeration process, by introducing bubbles, which reduces olive bitterness and darkening typical of controlled conditions. The results are equivalent to the layout treatment, but with less labor requirements and higher production yields of organic black olives.

The product is identical to a traditional olive, but with improved texture and lower cost. This technology enables production at greater scales and increases the supply of an organic and healthy product to the public. It serves the market of consumers of organic, functional and natural products. Additionally, this type of fermentation favors small farmers who may harvest the fruit and adopt the appropriate processes to offer the market organic black table olives.

Reduces contamination and improves product safety.

Reduces processing costs.

Prevents impact softening.

Enables greater production scales and increases supply of an organic and healthy product.

Progress: The prototype has been finished, and proven efficient at a scale from 100 to 1000 kg of fruit. Large scale production needs to be assessed as well as the extreme conditions of variables to find undesired limits.

cabralortiz.daniel@inta.gob.ar