Method for Debittering Olives and Production of Olive Abstracts Enriched with Polyphenolic Constituents

Tech ID: 23875 / UC Case 2013-121-0

ABSTRACT

The present invention provides a new method for curing and debittering olives quickly without the use of brine or harsh chemicals, and will generate very little waste water!

FULL DESCRIPTION

Olive curing typically involves the removal of bitter-tasting compounds, such as secoiridoids and polyphenols, from harvested olive fruit by using aqueous brine solutions containing lye (i.e., sodium hydroxide), sodium chloride, and other chemical agents to remove the bittering compounds from the olives. These methods have the disadvantages of generating high volumes of contaminated wastewater; have extended extraction times (months), and results in high levels of sodium in the final food product.

Researchers at the University of California, Davis have developed a revolutionary new method for debittering olives. Using this method, the bittering agents are efficiently removed under conditions that are substantially free of water and aqueous-based brines containing lye and other salts. This method eliminates the need for disposal of large amounts of aqueous waste solutions, which can be cumbersome and expensive. Additionally, the substantially water-free processing allows for easy packing and transportation of olives (e.g., from orchard to cannery) during the debittering process. The final olive product will be lower in sodium and will provide increased health benefits for consumers who require low-sodium foods. In addition, certain bittering compounds, including oleuropein and hydroxytyrosol, that are known to provide health benefits including lowering of cholesterol and protecting against myocardial infarction and atherosclerosis, can be recovered if desired.

APPLICATIONS

This invention has the following applications: extraction of bittering agents from olives for human consumption.

FEATURES/BENEFITS

- Cure Olives faster
- De-bitter olives without the use of chemicals
- Generate much less wastewater
- Polyphenols extracted from the olives, with known health benefits, can be retrieved
- Create cured olives with lower sodium content

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,713,339	07/25/2017	2013-121

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

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OTHER INFORMATION

CATEGORIZED AS

- **Agriculture & Animal Science**
  - Processing and Packaging
- **Biotechnology**
  - Food

RELATED CASES

2013-121-0

▶ Detection of Concealed Damage in Raw Nuts

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