



US006197363B1

(12) **United States Patent**  
Walter, Jr. et al.

(10) Patent No.: **US 6,197,363 B1**  
(45) Date of Patent: **Mar. 6, 2001**

(54) **METHODS FOR PRODUCING COOKED SWEETPOTATO PRODUCTS AND COMPOSITIONS THEREOF**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/216,518

(22) Filed: Dec. 18, 1998

(51) Int. Cl.<sup>7</sup> ..... A23L 1/217

(52) U.S. Cl. .... 426/637; 426/89; 426/273; 426/438

(58) Field of Search ..... 426/637, 524, 426/438, 273, 297, 311, 302, 549, 573, 89

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

- 4,663,180 5/1987 Padula ..... 426/637,512
- 5,480,672 \* 1/1996 Kusano et al. .... 426/615
- 5,552,166 \* 9/1996 Harada et al. .... 426/89

**OTHER PUBLICATIONS**

Food Science—Walter WM—Compositional & Bio-Chemical Factors Controlling the Texture of Sweet Potatoes, Sep. 30, 1996.\*

Truong, V.D. and Walter, W.M., Jr., (1994) "Physical and Sensory Properties of Sweetpotato Puree Texturized with Cellulose Derivatives", *Journal of Food Science*, 59(6):1175-1180.

Truong, V.D., Walter, W.M., Jr., and Giesbrecht, F.G., (1995), "Texturization of Sweetpotato Puree With Alginate: Effects of Tetrasodium Pyrophosphate and Calcium Sulfate", *Journal of Food Science*, 60(5):1054-1059.

Walter, W.M., Jr., (1997)"Restructuring of Purees Made from Beauregard and Hernandez Cultivar Sweetpotatoes" Progress Report to N.C. Sweetpotato Commission, Inc., Presented Dec. 28, 1997.

\* cited by examiner

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(57) **ABSTRACT**

Methods for producing cooked sweetpotato products suitable for freezing, baking or frying comprising adding to a cooked sweetpotato purée additional edible dry matter, tetrasodium pyrophosphate, a gelling agent and a calcium salt-water suspension sufficient to cause gelling, mixing the aforementioned ingredients together and forming the resulting mixture into desired shapes are disclosed. Structured sweetpotato food products comprising sweetpotato purée, added edible dry matter, tetrasodium pyrophosphate, alginate, added sucrose, added calcium and added water which can be frozen, baked or fried are also disclosed.

**3 Claims, No Drawings**