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[54] CHICORY EXTRACT POWDER PRODUCTS AND EXTRACT PRODUCTION PROCESSES AND APPARATUS

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[57] ABSTRACT

A water-soluble caramelized chicory product has a composition which includes, by weight, an inulin content between 40% and 65%, a reducing sugar content between 4% and 10% and a combination of fructose and glucose of less than 5% and which provides a depth of color, as described below, between 1.0 and 2.5. The product is prepared by extracting kiln-dried chicory with water to obtain an extract or by pressing chicory root to obtain an extract, the extract is heated in a tubular extractor to hydrolyze a part of the extract inulin content to increase extract reducing sugar content, the heat-treated extract is dried to obtain a powder, the powder is passed through an extruder and subjected to a temperature between 180° C. and 250° C. to obtain a caramelized product, and the caramelized product is cooled and then ground to obtain the water-soluble chicory product. Apparatus for preparing the product and for carrying out the process includes an assembly including devices for effecting water extraction or pressing to obtain a chicory extract, a tube system for heating the extract, a drier device, an extruder for receiving powder from the drying device for the extrusion and heating operations, a cooled belt for cooling the caramelized product and a grinding device for obtaining a ground caramelized product.

25 Claims, 4 Drawing Sheets

