Meetings International SciTechnol

J Food Nutr Disor 2018, Volume: 7
DOI: 10.4172/2324-9323-C5-021

EUROPEAN FOOD AND NUTRITION CONGRESS & WORLD COLLOID CONFERENCE

October 25-26, 2018
Vienna, Austria

Characterization of dry mixtures and carob-based beverages enriched with encapsulated dandelion extract

Busic A, Drazenka Komes, Seremet D and **Vojvodic Cebin A**
University of Zagreb, Croatia

Using fluid-bed agglomeration, the aim of this study was to prepare dry mixtures intended for preparation of carob-based beverages, with addition of encapsulated dandelion extract. Recently carob (*Ceratonia siliqua* L.) is often used as a substitute for coffee or cocoa powder due to the absence of methylxanthines caffeine and theobromine in its composition. Dry mixtures were investigated for physico-chemical properties, while bioactive profile (polyphenols and antioxidant capacity) was investigated in carob-based beverages, prepared with water and milk. Carob-based beverages were sensory evaluated using quantitative-descriptive method. Also, the impact of fluid-bed agglomeration and addition of lecithin was examined on evaluated parameters. After fluid-bed agglomeration, dry mixtures particles were enlarged in size, while the addition of lecithin improved the flow properties, solubility and dispersibility properties. Fluid-bed agglomeration resulted with dry mixtures lighter in colour and with poor wetting properties. Carob-based beverages prepared with milk had lower content of polyphenols and lower antioxidant capacity compared to those prepared with water. Carob-based beverage prepared with water and enriched with herbal extract had higher content of total polyphenols (849,10 mg GAE/L), hydroxycinnamic acid (178,74 mg CA/L), proanthocyanidis (1231,67 mg epicatechins/L) and tannins (35,00 mg TA/L) when compared to other samples. Samples prepared by agglomeration showed lower content of polyphenols and antioxidant capacity comparing to non-agglomerated sample. All carob-based beverages had taste of roasted cereals, while with highest overall acceptability was non-agglomerated carob sample prepared with milk evaluated.

drazenkakomes@gmail.com