

PC401

EFFECT OF MILK ON SENSORY PROFILE AND CONSUMER PREFERENCE OF TURKISH-STYLE COFFE

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The effect of milk on sensory attributes was determined using sensory mapping and consumer preference studies of selected products from several categories (e.g., economy, main, premium & super-premium). Sensory mapping was performed by an expert panel of coffee tasters while consumer preference survey was conducted at the respective market by a professional company that specializes in this area. Standard statistical methods were used for data analysis. The sensory data in combination with the information provided by consumers were used to determine the affect of milk addition on sensory attributes as well as consumers' response to these changes. Thus, we found major reduction in green and metallic notes while some reduction in acidity, astringency, bitterness and off odor. We also found a decrease in aromatic intensity. Consumer testing data reveals that the impact of milk addition on consumer's likings varies from product to product based on composition and degree of roasting. We also found that the change in consumer liking relates, in part, to the degree of reduction in acidity, astringency, green and burnt notes. A new product that meets consumer's preference was developed based on these findings.

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CHARACTERIZATION OF COFFEE GROUNDS FROM ESPRESSO CAPSULES

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Since 2000, when it was released on the market, the consumption of espresso coffee capsules has already exceeded 20 billion units, with a 30% increase per year and handles about 17 billion dollars per year only in the Europe. This increase in consumption has as a consequence the generation of large amounts of residue, making it necessary to study methods that add value to this residue providing opportunities for reuse of the same. This study evaluated the moisture, organic matter content, mineral content, oil content and protein content and calorific value of the residue from the beverage extraction of espresso capsules of four different origins. The average moisture content was high (63.6 ± 1.42% m/m), undesirable factor because energy must be expended in the drying process and also because it makes the material susceptible to microbiological attack, increase the volume for transport e decrease the calorific value. The average content of organic matter was high (35.9 ± 1.75% w/w, DW), desirable factor since this residue may have potential to be used in power generation by combustion, as organic fertilizer or microbial substrate. The average mineral content was low $(0.61 \pm 0.35\% \text{ w/w}, \text{DW})$. The calorific value was 20.6 MJ/kg. The average oil content was high (10.1 ± 0.311) % m/m, DW), thus the material can be designed for the production of biodiesel by transesterification reactions. The average protein content was high (10.4 ± 0.646% w/w, DW), very important property which shows that this residue has important nutritional properties and may be destined for nobler purposes as a component of animal feed.