

TÍTULO: Se presentará en MAYÚSCULAS y centrado

**INFLUENCE OF EXTRUDED RICE AND WHEAT FLOURS AND PARTICLE SIZE
ON THE RHEOLOGICAL AND TEXTURAL PROPERTIES OF COLD SAUCES**

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RESUMEN: Se podrá redactar la comunicación en español o inglés con una extensión máxima de una página (sin incluir título, autores y filiación). El texto se guardará en formato .doc o .docx. Los resúmenes deben contener: Justificación, objetivos y plan de trabajo, resultados, conclusiones, y si procede, bibliografía y agradecimientos.

Sauces are products commonly used as dressings in a number of dishes. Many sauces, as bechamel or white sauces, are prepared using starchy products as main ingredients. Therefore, these sauces have to be cooked to develop their viscous properties, based on the gelatinization of starch granules. However, as the retrogradation process takes place during cooling, the starch paste can form a cuttable gel. Extruded flours, whose starch has been previously gelatinized, possess the ability to absorb water in cold and a reduced retrogradation tendency. Therefore, they represent an alternative to starchy products allowing the preparation of sauces with no necessity of heating. Nevertheless, the type of cereal and their particle size can significantly affect their physical characteristics. In this research, rheological properties, stability, extrusion properties and colour of sauces prepared with oil, water and extruded wheat or rice flours of different particle size were analysed. Sauces made with extruded rice flours, with lower percentages of protein and higher levels of amylopectin, showed higher resistance towards freezing and a whiter colour compared to extruded wheat flours. Regarding rheological properties, rice sauces displayed lower values of the consistent index and yield stress as well as a less structural breakdown and higher flow behaviour index and viscous character. On the other hand, the finest flour displayed higher syneresis after freeze-thaw process and colour whereas lower values of consistent index, yield stress, G' and G'' moduli and extrusion force

were observed. These results are of great interest for the development of cold sauces and similar products such as confectionery creams.