**Effect of type and level of hydrocolloid on texture profile of rice flour wonton wrapper models**

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Wheat allergy is most common. The symptoms can range from mild to severe. In planning a wheat-free diet, looks for other grains such as rice, rye, tapioca, etc. and a combination of flours and hydrocolloid blends will give the desirable texture achieve. The aims of this study were to determine the effect of type and levels of hydrocolloid on texture profile of rice flour wonton wrappers. Rice flour was mixed with hydrocolloids Guar gum (GG), Locust Bean Gum (LBG), methylcellulose (MC) and xanthan gum (XG)) at the different ratio (100:0, 97.5:2.5, 95.0:5.0, 92.5:7.5 and 90:10). Texture profile of the rice flour wonton sheets was evaluated by using Texture Analyzer. The results showed that type and level of hydrocolloid had the significant effect on hardness, adhesiveness, gumminess and chewiness of wonton sheets. The sheet with rice flour mixed with XG had the highest hardness, gumminess chewiness and, adhesiveness. Increasing the hydrocolloid level increased hardness, gumminess, and chewiness for XG, GG, and LBG respectively, while MC had an opposite result.

*References:*

1. Verónica Dueik, Olajide Sobukola, Pedro Bouchon, Development of low-fat gluten and starch fried

 matrices with high fiber content, LWT - Food Science and Technology, Volume 59, Issue 1,

 November 2014, Pages 6-11,.

2. Jihyun Kim, Induck Choi, Woo-Kyoung Shin, Yookyung Kim, Effects of HPMC (Hydroxypropyl

 methylcellulose) on oil uptake and texture of gluten-free soy donut, LWT - Food Science and

 Technology, Volume 62, Issue 1, Part 2, June 2015, Pages 620-627.

3. Elisa Julianti, Herla Rusmarilin, Ridwansyah, Era Yusraini, Functional and rheological properties of

 composite flour from sweet potato, maize, soybean and xanthan gum, Journal of the Saudi

 Society of Agricultural Sciences, Available online 5 June 2015.

4. R. Moreira, F. Chenlo, M.D. Torres, Rheology of commercial chestnut flour doughs incorporated

 with gelling agents, Food Hydrocolloids, Volume 25, Issue 5, July 2011, Pages 1361-1371.

5. Sungmin Jeong, Hee Won Kim, Suyong Lee, Rheological and secondary structural characterization

 of rice flour-zein composites for noodles slit from gluten-free sheeted dough, Food Chemistry,

 Volume 221, 15 April 2017, Pages 1539-1545.