Pavioli - a novel RTE product based on under-utilized ingredients and suitable for HPP processing

**Abstract:** It is well known the food insecurity and malnutrition are still the major challenges that affect the world. One approach to this problem is to utilize uncommonly-used natural ingredients for various food applications. The objective of this project is to develop a novel ready-to-eat entrée based on brown rice, which is an under-utilized ingredient yet with a relatively high production rate in under-developed nations. Lightly drizzled in a spicy yet tangy creamy sauce, the Flaming Crisp is an orange-colored ravioli product consisting of brown rice flour, annatto, and infused with a sweet potato filling. Annatto is known to add natural coloring elements to food, subtle flavors to many dishes and is chemically stable in oxidative, thermal, and well-lit conditions. The unique process involves the boiling annatto first, and the water containing of the orange color was used to prepare the dough for making ravioli wraps. The dough itself consisting of a brown rice flour was also mixed with different seasonings with a subtle orange appeal entailed from the annatto boiling water. In addition to consumer appeal, the annatto will help aid the brown rice flour during frying by providing a sturdy-friable structure that will aid the ravioli shell with an extra palpable crisp. Sweet potato was chosen to prepare for the filling based on a market trend and its ability to balance the overall taste. The project has some preliminary results: Preliminary results from visual observation of raw and cooked samples confirmed the color stability, suggesting the orange color from annatto was stable during cooking process. A quick taste test confirmed the cooked samples had desirable taste and texture. The vegetable filling is an item still being deliberated upon as a final filling for the raviolis. Future sensory tests along with nutritional information analyses of the product will determine how to distinguish between products likeness and similarity to a frozen entree ravioli sold in grocery stores.