



NUTRITIONAL IMPACT OF THE PRE-BAKED PIZZA DOUGH MADE OF THE NUTRITIVE FLOURS VS CLASSIC PIZZA DOUGH ON THE FOOD DIETS

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Abstract: In this experimental research, were followed the quality characteristics of the flours and the pizza dough obtained from them, the Graham flour, gluten-free flour and rye flour. These three varieties of flour were chosen due to the beneficial nutritional influence on some diets. Thus, two control samples were made from T650 flour and T 480 flour and the new technological recipes for the pizza dough tops made from Graham flour, gluten-free flour and rye flour. The characteristics of the innovative recipes were followed through comparative analysis with the characteristics of classic pizza doughs, analysing: the acidity, the hydration capacity of flours, the humidity, the wet and dry gluten of flours, the moisture, the elasticity and deformation of doughs, as well as the acidity, porosity, the salt content, the specific volume of pre-baked pizza doughs.

Introduction.

The caloric value and energy intake of the studied of pizza types were analysed. It was also monitored some pizza types, estimating by simulation their caloric impact on the finished product - different pizza assortments - Pizza Caltzone, Pizza Quatro fromage, Pizza Margeritta, Pizza with tuna, corn and pineapple which used the flour obtained by wheat T 000 and T 650.

Material and method.

The experiment aimed to test different flours on prebaked pizza dough for new recipes using rye flour, diet flour, gluten-free flour compared to T 000 flour and T 650 flour made from wheat. The humidity, moisturizing capacity, elasticity, acidity and porosity of pizza dough have been studied by comparison.

Results and discussions

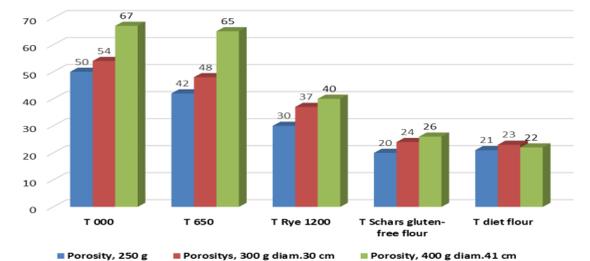
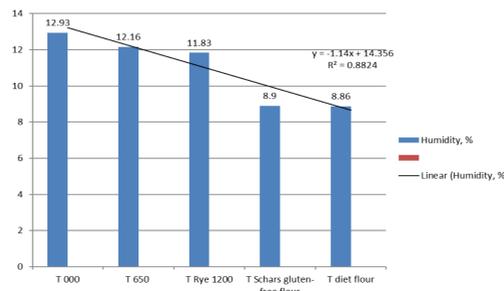
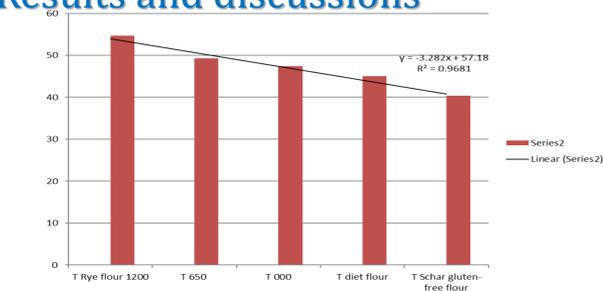


Fig.3 Evolution of porosity, %

Fig.1 Dynamics of the hidration capacity of flour

Fig.2 Evolution of flours moistures

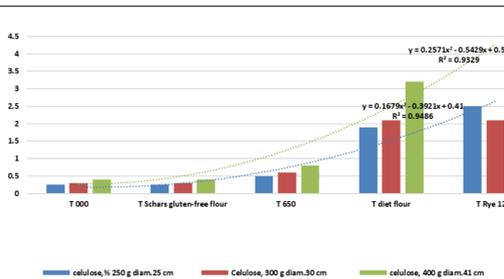
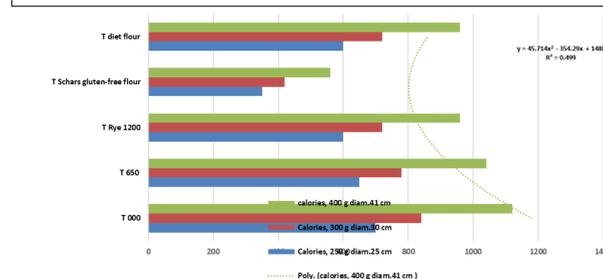


Fig.4 Calories dynamics of pre-backed pizza doughs

Fig.5 Dynamics of cellulose at different sort of pizza- small, medium and extralarge

Matrix of food additives used in classic pizza crusts					
Additive type	Name of additive	Effects	Additive type	Name of additive	Effects
E 300	ascorbic acid	whitens flour	E 471	mono- and diglycerides of fatty acids	emulsification
E 282	calcium propionat	prevents the appearance of mold	E 472	esters of momo and diglycerides of fatty acids	emulsification
E 920	L-cisteina	emulsification	E 481	stearoil 2 lactilat de sodium	stearic and lactic acid
E 1100	Vital gluten	increases the strength of flour with weak gluten	E 101	Riboflavine	Antioxidant
	Glucose	favors taste	E 102	tartrazine	yellow color
	vegetable fibres	accelerates digestion	E 330	citric acid	increasing acidity
	Premixture of powder, eggs and enhancers;	ensures stability	E 200	sorbic acid	preservative against yeasts and molds

Conclusions

1. The flour's moisture and the hydration capacity have evolved downwards from T 000 flour to dietary flour. Gluten-free flour also has a lower hydration capacity.
2. As a result of the flour composition, pizza crusts had a decreasing porosity from the countertops obtained from wheat flour T 000 and T 650 with porosity of 65-67%, to rye flour with an average porosity of 30-40% and diet flour with 21-23% porosity and gluten-free flour with a porosity of 20-26%.
3. The Caloric weight varied upwards from gluten-free flour to T000 flour. Similarly, rye flour and dietary flour recorded a lower caloric weight.
4. The cellulose, insoluble fiber content varies increasing from countertop made from T000 flour, gluten-free flour to T650 flour, diet flour, rye flour having the highest intake of insoluble fiber.
5. There are 11 additives which are added in the pizza doughs. These are artificial substances.

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