

COMPARATIVE STUDY CONCERNING BREAD PRODUCTS MAKING ENRICHMENT WITH INSOLUBLE AND SOLUBLE FIBRES

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Abstract: *Since the 70's years it was laid stress on using the fibres in human feeding because it was scientific demonstrated its important role in human health.*

A functional role it was attributed especially to the soluble fibres that help in the control of the level of the glucose and lipids in the blood.

Therefore, the practical and theoretical researches were made in order to obtain bread with a low content of glucides and calories.

From the speciality literature displayed in references results that an addition of soluble fibres in foods can give them functional proprieties, with positive role on the human body health. The purpose of this paper is to present a study about bread where was added insoluble fibres (bran) and soluble fibres (inulin).

It was analyzed the percent of fibres retrieved in the final product relatively to the initial supplementation, the percent of protein. It was calculated the energetically value and it were done appreciations about the intake of the fibres in comparison with daily demand recommended.

Depended on results that were obtained and on the recommendations from the speciality literature it is possible to consume different quantities of functional bread products, to satisfy the menu of the persons with health problem.

Key words: *bread products, inulin, bran, insoluble fibres, soluble fibres, functional bread products*

Introduction

Detailed studies made along the years, show that an intake soluble fibres and /or insoluble fibres in foods, decrease much the diseases appearance, that's why the fibres were used in preventive and therapeutics feeding.

It is recommended a daily consumption of about 20 to 30 grams / day (cereals fibres, vegetables fibres and fruits fibres)

Like a general indication it is recommended black bread (enrichment with fibres) instead of white bread.

Started with these considerations we want to present the bread products made by SC Lujerul SA Bucharest, that come in the greeting of these demands through the intake fibres both soluble and insoluble.

Materials and methods

It was used two types of dietetic flour (,macinis total', graham), black flour, insoluble fibre (wheat bran), soluble fibre (inulin), gluten vital, yeast, iodated salt, water.

It was obtained 2 types of bread with low energetically value and with important intake of fibres.

Working methods

It was used monophasic method, baking in tries.

Sample preparation

Basic mixing formula for bread products making with added fibres are displayed in table 1

Table 1: Basic mixing formula for 100 kg final products

Ingredients	Bread with bran	Bread with bran and inulin
Dietetic flour (graham)	5	-
Dietetic flour (‚macinis total’)	-	37
Black flour	40	-
Yeast	2	1,8
Gluten vital	0,7	13
Wheat bran	7	13
Inulin	-	2
Iodated salt	1	1

Results and Discussion

Started with the composition of these 2 bread products it was obtained the displayed nutritional characteristics shown in table 2:

It was observed that in the case of added soluble fibres, the energetically value decrease, through the decrease of the glucose contain and the increase of protein and fibres contain

Table 2: Nutritional characteristics

Nutritional information's / 100 g final product	Bread with bran	Bread with bran and inulin
Energetically value, kcal	203	185
Proteins, g	8,3	12,5
Glucose, g	41,4	29,7
Lipids, g	1,1	1,8
Fibres, g	3,2	6

Conclusions

It is recommended the fibres ‘enrichment bread products consumption because they have a low energetically value.

From the specialty literature it is known the daily fibres necessary and its role in human body.

From the table 2 we can say that 100 grams of bread with bran can assure around 10 % from the daily fibres necessary, and the bread with bran and inulin around 20% from the daily fibres necessary.

In the case of the bread with inulin addition (soluble fibre), we can state that

the product have a functional role. This role is given by inulin.

References

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