SORGHUM IN HUMAN FOOD

PASTA NUTRACENTIS: Monia CARAMMA
(Agricultura Biologica Company)
FOOD INNOVATION
Since 2015, Agricultura Biologica srl produces functional pasta with the Nutracentis brand.

The choice to use sorghum was the result of a search for cereals that have a positive impact on consumer wellbeing and that respect the world sustainability.
TORCETTI

Traditional methods: bronze drawing, minimum drying 19 hours

Innovation: minimum use of water in the mixture to maintain the naturally compact dough.

We do not use thickeners, emulsifiers, mono and diglycerides of fatty acids
The scientific studies available on PUBMED demonstrate the positive impact of a sorghum-based diet in combating even serious diseases such as colon, breast and diabetes.

Sorghum is rich in anthocyanins and has a low glycemic index. The iron content helps to minimize the effects of chemotherapies.
Effects of Sorghum Pasta Production Techniques on Health and on Protection of Nutritional Values

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Received Date: May 5, 2018 Accepted Date: June 18, 2018 Published Date: June 24, 2018

Abstract

Sorghum is a cereal of strategic importance both for human and animal nutrition due to especial nutritional characteristics and the adaptability to warm climates, such as the African one. Many studies focus primarily on the effects of diabetes and on prevention, or on oncological diseases. If established, more rarely it is the techniques of cultivation and transformation, with an emphasis on the production of pasta. Sorghum is an essential food component of the Mediterranean diet and gluten free formulations is a common product of available products, emulating additives and water. What are the effects of certain additives is yet to be determined especially on individuals affected by nutritional and intestinal disorders.

Keywords: Sorghum; Sorghum pasta; Nutracento; Functional Food; Gluten free Pasta

Introduction

In 1998 I started suffering from irritable bowel syndrome (IBS). Crohn’s disease and gastroesophageal reflux. Doctors, years ago, had no literature on these diseases and limited to treating the symptoms with painkillers and drugs to inhibit the gastric pump. It was then impossible to understand the possible correlations between disease and nutrition [1]. I started to investigate agronomic techniques, cultivation, genetic improvements of cereals, conservation techniques and transformation of raw materials up to the pasta production. The attention was immediately on the sorghum, cereals that do not need constant artificial irrigation because of the ancient seed is genetically predisposed to climate adaptation. It does not even need nitrogenous soils or conventional fertilizers [2]. The gluten obtained from organic farming are milled and transformed into flour with low gluten contamination, which results in less water absorption. The result is a solid dough which, drawn in broiler, keeps the shape of the dough without breaking. The prolonged drying after 19 hours at low temperature guarantees the evaporation of excess water and the maintenance of the structure, as well as the lower dispersion of nutrients [3]. Drying at high temperatures in a short time (HT6 High Temperature-Short time, HTS Very High Temperature-Short time) creates a measurable thermal damage from the amount of vitamins present in the pasta. Pasta with values of vitamins lower than 20%, is considered a product with a good index of nutritional quality, because the quantity of essential minerals such as silicon remains high. When a value of 5/600 is (in durum wheat pasta), it means that the drying temperature is very high and in these cases the bioavailability of the minerals undergoes a strong decrease [4]. The pasta production technique described above does not require emulsifiers or additives such as mono and diglycerides, contrary to what is indicated in some studies of standardization of production techniques [5]. A pure food that is rehydrated in cooking water in a very short time about three, with minimal dispersion of nutrients. The nutritional analysis show that the sorghum maintains the nutritional values and has high digestibility thanks to the amount of starches and fibers [6].

Conclusion

The amount of iron and phosphorus suggests a relevance in countering side effects of chemotherapy, the study started on the 7th April 2017 is still open and will soon give us results both with objective data (blood values) and subjective data (perception of quality of life).

We analyze the effects of a diet with daily intake of sorghum pasta in chemotherapy patients with colon and breast cancer.

References