

F.7. BENEFITS, PHYSICAL-CHEMICAL AND FUNCTIONAL PROPERTIES OF CHIA SEEDS - SALVIA HISPANICA L. (LAMIACEAE)

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Abstract. Nowadays, consumers increasingly seek after foods that have a high nutritional value and offer additional health benefits by incorporating new ingredients and natural products whose composition has protective effects against certain diseases; Many studies show that diets play a significant role in preventing many chronic diseases, providing more nutritional and non-nutritional compounds useful for maintaining a good health beyond the required energy intake. Given the growing popularity of seeds, specialists inform us about; nutritional potential and how to include them in our diet. Many seeds are edible and we should eat them raw. After being exposed to heat, they often produce toxic substances and

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vitamins, minerals and essential oils are denatured. That is why it is very important to know information about each one, namely the physical-chemical changes to the culinary treatment. There are several types of seeds to choose from and they are easy to add to a wide variety of dishes, adding extra flavor, nutrition and health. Nowadays, virtually all diets include flax, sesame, sunflower, pumpkin, hemp, etc. Many sources talk about the benefits but few know the origin and functional properties of these seeds. Chia seeds (*Salvia hispanica L.*) come from a biennial plant crop that belongs to the mint family (*Labiatae*) and is considered a pseudo cereal, the seeds have a high oil content, they contain between 25% and 40% fat and are among the sources of plants with the highest content of omega-3 alpha-linolenic acid (68% alpha-linolenic acid). By using functional foods rich in polyphenols and omega-3 fatty acids would improve health. There is no information or evidence of adverse effects or allergies caused by the consumption of chia seeds (whole or ground), so their use in food would be a major benefit, and research shows the possibility of capitalizing on them by incorporating them into various food matrices (confectionery, pastries, culinary preparations).

Keywords: Chia - *Salvia hispanica L.* (*Lamiaceae*), nutrition, functional properties, functional foods