



The Bio Foods. Sources of Life

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Abstract

In the first decades of the 21st century, phenomena occur on a global scale that considerably affect human life, among them those related to prolonged and repeated exposure to synthetic pesticides and artificial fertilizers in food, which cause carcinogenic effects or problems in the proper development of children. Hence the need to know the importance of bio foods for health as they constitute a source of life, not only human but also ecological. This constitutes the objective of this work, which is derived from the Institutional Project: Agroecological and Nutritional Education from the training process of the University of Sancti Spiritus, "José Martí Pérez".

Keywords: Food; Nutrient; Bio food; Health; Agroecological; Organic Substances; Lipids

Introduction

It is necessary to educate in the knowledge of the consequences that come with the use, in food production, of chemical products such as pesticides and fertilizers, genetically modified products, among others. These constitute a risk of generating diseases, already proven by numerous studies, associated with different types of cancer, genetic malformations, reproductive, respiratory, renal problems, hypothyroidism, and attention deficit. Food free of these products will largely prevent the acquisition of these diseases, so it is necessary to contribute to healthier production of food that promotes a better diet capable of providing the body with all essential nutrients. The health and proper functioning of our body depends on the nutrition and food that we have during life, these concepts, even when they seem to mean the same thing, are different.

Food is all the natural or industrialized products that we consume to cover a physiological need (hunger). And nutrients are substances found in food that the body needs to perform different functions and maintain health. Among them: proteins or proteins, fats or lipids, carbohydrates or carbohydrates, vitamins, and minerals [1].

The chemical products that are sometimes supplied to food to improve production leave traces of toxic residues, so their intake can also be dangerous to health and cause diseases such as: heart problems, allergies, asthma, osteoporosis, hyperactivity, headache, among other affections. The term bio food refers to those foods that are characterized by the absence of pesticides, hormones, and other substances, in their growth, which increases

their benefits for our body. They are very healthy foods that, when used in a diet, provide great help in the proper functioning of all our organs and therefore guarantee the functional integrity of the body. The prefix bio- means life, health..., therefore, we consider that the word bio food means organic food for a healthy life.

Many scientific studies support the claim that foods produced organically or agroecologically are more nutritious than those that have been produced conventionally, that is, with chemical input technologies. A healthy soil is the best substrate for healthy plants that would support populations of healthy living beings that feed on them, that is, the health of the soil is the basis of the health of plants, animals, and human beings. Following a varied, balanced diet made up of bio foods not only brings multiple benefits to our health, but also helps to take care of the environment and reduce pollution.

How important is the contribution to the body of these compounds?

Studies carried out confirm that bio foods or those foods that are produced organically, have more antioxidants than conventional ones, more vitamins, proteins, minerals, or natural sugars. Examples of antioxidants are β -carotene, lutein, lycopene, selenium, vitamin A, vitamin C, vitamin E, among others. Through various studies it has been shown that these elements can reduce the probability of contracting some types of cancer. Antioxidants are highly coveted in contemporary dietetics, they are molecules capable of slowing down or preventing the oxidation of other molecules whose reactions can cause damage to cells; they allow

to deal with the free radicals that it produces, for example: vitamin E, and other similar organic substances, have an antioxidant effect that preserves cells from the collateral damage of respiration and prolongs their life. Free radicals are atoms with a free or unpaired electron, that is, it is out of balance and needs a proton to rebalance itself. When it does, it usually steals that proton from another atom or molecule (in this case a cell in our body) which in turn becomes unstable and repeats the process, causing a chain reaction that ends up damaging our cells.

The body has its own mechanisms to neutralize these free radicals, but when their production is excessive or their repair insufficient, damage can occur. That is why it is so important to help the body in the task of neutralizing them by consuming biofoods that provide a greater number of antioxidants [2]. Vitamins are essential substances that the body requires for numerous processes of homeostasis and normal functioning, but that it cannot synthesize on its own. So, we must consume them in food, hence the need for them to be free of contaminants that can affect us and even more so if they are fruits and vegetables that are consumed without cooking. Fruits and vegetables that come from living, organic soils, without additional chemical inputs, have a higher content of vitamins, mainly vitamin C [3]. Proteins are essential nutrients for the human body. They are one of the building blocks of body tissue and can also serve as a source of energy; Those of animal origin come from the consumption of animal meat, whether red meat (beef, pork, mutton) or white meat (poultry, fish). It is one of the most abundant and immediate sources of protein and lipids for human beings, although it often does not represent the healthiest model of food (especially in the case of red meat) [4].

Vegetable proteins are provided by biofoods such as legumes, grains, soybeans, and many fruits; healthier alternative to eating meat and its dangerous saturated fats. These proteins favor the growth and strengthening of muscles [5]. Sugars such as sucrose (table sugar) or fructose (fruit sugar), many carbohydrates are part of the organic nutrients that we consume daily. These compounds are made from carbon, hydrogen, and oxygen mainly, and once in the body they are transformed into glucose (immediate energy) [6]. Bio foods provide us with water, an inorganic nutrient essential for life, and the largest known solvent, which makes up a high percentage (more than 60%) of our bodies.

They provide us with minerals such as sodium, which plays a fundamental role in the body in homeostasis and cellular transport (sodium-potassium pump) to maintain a stable level of alkalinity and acidity in the body; potassium, vital for the body and one of the substances that exchange neurotransmitters in the central nervous system and that helps muscle function, including

heart function. Other minerals that they provide are the calcium responsible for the strength of the bones; the iodine necessary for the proper functioning of the thyroid; the iron constituent of hemoglobin that transports oxygenated blood to all parts of the body; the phosphorus that is part of the bones and teeth, as well as the chemistry of the brain. Also, selenium, antioxidant mineral, which integrates vitamin E, widely studied as a therapy against aging and as a possible therapy to increase male fertility; manganese, related to cognitive and brain abilities, such as memory, lucidity; magnesium, mineral salt of great importance for the electrolyte balance of the body [7].

An ecological soil, free of fertilizers or other chemical compounds, is characterized by the presence of microorganisms that facilitate the availability of said minerals; which will be absorbed by cultivated plants, and these, when consumed in the diet, will provide man with a higher content of iron, calcium, magnesium, phosphorus, assuming a vital role in his growth and survival [8].

Conclusion

The fact that biofoods are produced naturally means that their properties are not altered and their true flavours, colors and aromas can be appreciated, especially in the case of fruits and vegetables. As they do not have chemical, synthetic, or additive products, they are very healthy. Its consumption helps strengthen the immune system, improve sleep quality, lose weight, and even reduce the chances of developing diseases such as cancer, conditions such as high blood pressure, anemia, allergies, among others. In addition, by consuming organic products we also contribute to the protection and care of the environment [9].

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