



Classification of Bio-fertilizers and regulations and international standards in the field of agricultural production and healthy eating: Review Article

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ABSTRACT

Today, increasing agricultural production to meet the growing needs of an expanding population, have raised concerns about future food supply to the people. Contamination of water, soil, air and soil erosion, pest resistance to pesticides and chemical fertilizers led to the development of conservation farming industry and go back to the past. So healthy and clean production and thus healthy and happy human beings, we have no choice but organic farming, organic farming, the use of traditional knowledge and to reduce the use of pesticides and chemicals in agriculture and livestock production. The use of organic herbal products is closely tied to the health of the population. Due to increasing demand for consumer goods in the form of organic farming to farmers based on soil and environmental management is based on the growth of plants and trees, Such action is in the nutrition of plants and trees, the balance between the elements needed to eat and when they grow in soil too, does not require the use of poisons and pesticides. Nutrition and soil, natural fertilizers instead of chemical fertilizers such as dirt, leaves, algae and animals and biological fertilizers are used. Needed to combat the pests instead of pesticides used Chemical pesticides, biological methods such as bacteria or resistance to insects and pests in plantations, To be exploited in this type of agriculture and genetically modified seeds have been exposed to radiation is not used. Thus, the final product that reaches the consumer free of toxic residues and chemical and preservative will. On the other hand, the production of quality food products, biological fertilizer product that is not only consumers but also provides satisfaction guarantee is also their physical health. This article is based on biological fertilizers with a view to its role in human health and engages the community.

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INTRODUCTION

Fertile material describes the biological fertilizer containing sufficient numbers of one or more species of beneficial soil organisms that are offered on a suitable preservative. (retty, 2002) Fertile material describes the biological fertilizer containing sufficient numbers of one or more species of beneficial soil organisms that are offered on a suitable preservative. (Persian Pur and Salehi, 2006) The biological fertilizer nutrients, microorganisms are capable of using the above form can be used to convert this conversion is done in a biological process. Bio fertilizer production costs low and does not create pollution in the ecosystem (Esfahani, 2006).

History of biological fertilizers (manure microbial):

Chemical fertilizers in the last decade due to various environmental effects such as soil and water pollution problems in a variety of human health and other living organisms arose. Agricultural policy, sustainable agriculture, sustainable development, it experts that more organisms in the soil for plants to help meet nutritional needs and thus began the production of biological fertilizer. (Malakouti, 1999) It has a very long history of biological fertilizers. Producers to strengthen land plants were planted beams Legomeynoz name and believed that its cultivation increases soil fertility. (Alizadeh, 1992)The historical writings of planting clover, bean, Egyptian and ... Has been reported to enhance the soil. Beneficial soil micro-organisms, biological fertilizer, preservatives, which are generally dense and with a large number were produced in a medium. Agricultural lands are commonly used in packaging .(Wallace, 2005)

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The purpose of biological fertilizers, improving soil fertility and crop nutrient needs, although it may have other beneficial effects Biological fertilizer production Nitra Zhen first brand that was used in the late nineteenth century and since that date they were made of biological fertilizers. Organisms that are used in the production of biological fertilizers are mainly isolated from soil. In vitro propagation and cultivation are found in specific culture media and then powders are packaged and ready to be consumed. (Wallace, 2005)

Classification of Bio-fertilizers (biological)

A) The type of microorganisms, biological fertilizers can be classified as follows:

- 1 - Bio fertilizer bacteria (Rhizobium - Azeotobacter - Azospirillum...)
- 2 - Bio fertilizer fungi (Micoriza)
- 3 - Algal Bio fertilizer (green algae - blue and Azolla)
- 4 - Bio fertilizer for Actinomycetes (Frankya)

B) With respect to actions that microorganisms do

Bio-fertilizers are classified as follows:

- 1 - molecular nitrogen stabilizers
- 2 - Mycoriiza fungi.
- 3 - phosphate solubilizing microorganisms and insoluble
- 4 - The growth of bacteria in the rhizosphere
- 5 - microorganisms in converting organic waste into compost
- 6 - earthworms producing vermicomposting

In general, the year 1980 was accepted by organic farming

And principles of organic farming were announced as follows:

- 1 - Principle of Health
- 2 - Principle of ecology
- 3 - Principle of Fairness
- 4 - primary care

Safety, production flexibility and re-generation of the key features are intact (Kvpahy, 2007).

The most important international organization that is covered by the organic movement (IFOAM) is called.

Why we use organic food?

Organic food refers to food that is made without the use of synthetic pesticides and herbicides and genetically modified organisms are produced. The need for organic food (food without chemicals and processed without additives) free of pesticides is increasing rapidly. These pesticides are designed to kill organisms and therefore can be considered a serious threat to human health. According to the National Cancer Institute, 30 percent of insecticides, fungicides, 60% herbicides and 90 percent are carcinogenic. This is just one of the negative side effects. These chemicals can damage the nervous system and hormones. Children more vulnerable than adults to pesticides. In fact, their sizes, small in these materials are exposed to a higher percentage. Laws and international standards :(Malakouti, 1999)At present, the production of agricultural products of both biological and IFOAM international standards CAG are discussed. Set of dietary rules (CAG) of this Act shall be subject to all stages of biological development and promotion of agricultural production, processing, labeling and marketing of biological production methods will Agricultural biodiversity management system makes up the general attitude of the health of ecosystems, the system cycles and soil biological activity Helps to reduce environmental pollution, but a definitive solution has not yet unrealized foreign entities such as limited use of chemical fertilizers And pesticides has been built, and the application of this method is to reduce the contamination of water and soil.

2-International Federation of Agriculture Movements biological (IFOAM) Biological basis of the law Agriculture, food security, nutrition, animal welfare, social justice and founded agricultural and horticultural crops not only biological but also includes livestock and aquaculture. There are some national standards also have important economic policies such as Europe and the U.S. standard agricultural Parliament. (Wallace, 2005)

Methodology:

Given the importance of biological fertilizer needs of the crop, but not because of its application to which does not harm the environment. And to improve the quality of agricultural products and thus helps the health of consumers, this research was conducted. Library and Internet research findings and studies, and use of information that farmers have taken advantage of this type of farming system.

Results of the study:

Based on the results obtained in our nation's agricultural pesticide use per 400 g per person Also, the amount of 2.5 to 3.5 million tons of chemical fertilizer has increased in the past 10 years. In conventional agriculture, including more than 300 kinds of harmful chemical pesticides, herbicides and chemical fertilizers and pesticides to control pests and fertile soil is used In addition to the remains of this material to contaminate ground water, air, plants and trees absorb part of the crop as Sample fruits and green deposit will be transferred

to the human body during use. According to the committee, organic products, the total area of crops which are produced without the use of pesticides and fertilizers. Approximately 239 thousand and 264 thousand and 802 acres, including 125 acres of horticultural products and 113 thousand and 659 hectares of crops and the general level of agricultural and horticultural crops that produce them done without the use of fertilizers and pesticides, respectively one and two sevenths of the total acreage of agricultural and horticultural products will form. Since 2/1% of the world's agricultural land is located in Iran, and only about 3/0% of global consumption of pesticides used The world is better than average, so it is recommended to establish a biological farming system At the same time, by developing biological production on the ground in the supply and distribution network planning required for Development of biological agriculture economy because it is urgently needed.

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