



Nutrition of Plants through the Stomatoms

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Abstract: The article shows the main source of the energy component of plant nutrition. Theoretical studied photosynthesis, a biochemical reaction for the synthesis of hydrocarbons from water and carbon dioxide. The energy of light in this process is stored in the form of a chemical bond of carbon and hydrogen, and the oxygen that plants do not need is released into the atmosphere.

Keywords: main source, plant nutrition, light, air, water and soil, carbon, oxygen, nitrogen, phosphorus, calcium, potassium, magnesium, sulfur, iron.

INTRODUCTION

Nature has taken care of a very harmonious combination of various elements, so that in natural ecosystems an efficiency unprecedented for artificial systems is achieved. Plants are one of the main elements of all natural systems. Plants contain many chemical elements and compounds. Although they require light, air, water and soil to live. Almost all the required compounds are synthesized by plants themselves. In forests and steppes, where a very large number of various plant species grow, soils do not lose their fertility and only accumulate it. Of course, this is not a quick process, but over many hundreds of years, chernozems with a thickness of a fertile layer of more than a meter have been able to form. This became possible thanks to the microcosm located inside the soil, in which various living organisms actively process organic matter and minerals. A cover of grasses, trees and shrubs protects the soil from drying out, creates favorable conditions for the inhabitants of the microworld, and serves as a source of their nutrition [1-8].

METHODS AND RESULTS

The main source of the energy component of plant nutrition is light. Through photosynthesis, plants can synthesize hydrocarbons from water and carbon dioxide. The energy of light in this process is stored in the form of a chemical bond of carbon and hydrogen, and the oxygen that plants do not need is released into the atmosphere. In addition to carbon dioxide, plants receive from the air, nitrogen, water, oxygen and a number of other gaseous elements. This happens through the micropores that cover the green parts of plants.[9-13].

Plants obtain water and various chemical elements from the soil. However, there are a number of plants that do not need soil at all, they receive the entire range of elements they need from the air. If you disassemble the plant into the simplest chemical compounds, it turns out that it is 80-90% water. This is the most important chemical compound for plants, and for all other forms of life. It is involved in all organic processes. The rest of the composition is occupied by various mineral compounds that plants receive from the soil in the form dissolved in water. The soil itself consists of a mineral part, dead organic matter and living organisms - these are various microorganisms, fungi and insects. Plant nutrition elements.

CONCLUSION

The minerals used by plants are divided into two categories: macronutrients and micronutrients. Macronutrients for the life of plants need a lot, they are involved in all processes occurring in the plant. These are carbon, oxygen, nitrogen, phosphorus, calcium, potassium, magnesium, sulfur and iron. Trace elements are involved in very small amounts, but without them, certain processes important for the growth and reproduction of plants do not take place in plants. These include copper, iodine, zinc, silicon, manganese, molybdenum, chlorine, sodium. In the wild, plants grow without fertilizing with various fertilizers, but the yield there is noticeably smaller. Depending on local conditions, the substances available to plants vary significantly, and the plant species that dominate in the given territory also change as a result. For harmonious and maximum growth of cultivated plants, they are fed with the missing substances in this field. There are two main reasons for the lack of substances in the soil - the first: the removal of the mass of plants along with the harvested crop, the second: the cultivation of plants on soils other than those required by them. Thus, in order to obtain the maximum yield, the plant needs to create conditions that are closest to the conditions of the place of origin. Although a plant can create itself or get almost all the necessary elements from the soil, their quantity may not be enough to get a good harvest. Therefore, it is important to provide plants with access to the right amount of water, organic and mineral substances.

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