THE IMPACT OF FERTILIZERS ON PLANTS AND THEIR IMPORTANCE IN AGRICULTURE.

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Abstract: *Fertilizers play an important role in the growth and development of crops. They provide essential nutrients to plants, which can help them grow healthy, bear fruit, and increase overall productivity.*

Keywords: *Mineral fertilizers, organic fertilizers, fertilizer indicator, growth rate "N-P-K", soil fertility.*

Fertilizers are mainly divided into two types: mineral (chemical) and organic.1. Mineral fertilizers: they contain the basic elements necessary for plants, such as nitrogen, phosphorus and potassium. Nitrogen accelerates plant growth, phosphorus strengthens the root system, and potassium improves overall plant health. 2. Organic fertilizers: this type of fertilizer is obtained from natural sources, such as animal residues, compost or plant residues. They increase soil fertility, improve soil structure and stimulate the activity of microorganisms.

The effect of fertilizers is visible in the following aspects:

Growth rate: Fertilizers increase the growth rate of crops, which leads to their faster development. Productivity: proper fertilization can significantly increase crop productivity. Health: Fertilizers increase the ability of plants to fight diseases. Soil fertility: Fertilizers improve the chemical and biological properties of the soil, which will also be beneficial for future crops. However, excessive use of fertilizers can negatively affect the soil and environment, so it is important to apply them carefully and in the recommended amount.

The fertilizer indicator usually represents the ratio of the basic nutrients contained in the fertilizer and their usefulness to soil and plants. Fertilizer indicator includes the following main elements: 1. Nitrogen (N): the main element necessary for the growth and development of plants. Nitrogen affects the leaves and overall growth of plants. 2. Phosphorus (P): strengthens the root system and plays an important role in the fruiting process of plants. Phosphorus is also involved in energy metabolism and photosynthesis. 3. Potassium (K): improves the general health of plants, helps fight stress and increases the ability to store water. The fertilizer indicator is usually displayed on their packaging In "N-P-K" format, for example 10-20-10. These figures indicate how much percent nitrogen, phosphorus and potassium is contained in 100 kg of fertilizer. In addition, the fertilizer

indicator can also be expanded with other microelements, such as iron, manganese, zinc, etc., since these elements are also important for plants.

Fertilizers are important in agriculture because they play a key role in ensuring plant growth and development. Fertilizers provide the necessary nutrients to plants, which increases their productivity. 1. Nutrient supply: Fertilizers provide plants with basic nutrients such as nitrogen, phosphorus, potassium, which are essential for their healthy growth. 2. Increase productivity: with the help of fertilizers, it is possible to increase the quality and quantity of agricultural products. It provides economic benefits for farmers. 3. Plant disease resistance: proper fertilization makes plants resistant to disease and pests, which increases their viability. 4. Improving soil fertility: Fertilizers improve the chemical composition of the soil and increase soil fertility, which is beneficial for agriculture in the long run.

Conclusion: When choosing and applying fertilizers, it is important to take into account their indicators, increase the growth and productivity of crops. For this reason, fertilizers are one of the necessary tools for successful and sustainable production in agriculture.

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