

fertilizer pollution causes diseases in plants

Introduction

Fertilizer improves plant growth, bloom production, fruit set, and overall plant health. However, there are seemingly endless options for organic and chemically sourced fertilizers and it can be very confusing to make the right choice. The first step is to understand the purpose of fertilizing, there are different types of fertilizers are available on the market, it is not possible for a farmer can easily recognize all the fertilizer so these may lead to the use of improper fertilizer for the plant which can cause so many problems. The major nutrients for the fertilizers are nitrogen, phosphorus, and potassium. The second is to understand that the plant need different fertilizer for different time span throughout the year. There are mainly two types of fertilizer are available. One is natural fertilizer and another one is synthetic fertilizer also called chemical fertilizer. Natural fertilizers can be used whenever possible because it is a slow term process they stimulate plant growth, help to produce large amounts of crops, and improve soil health without harming the environment or ecosystem. These are derived from renewable resources like bones or naturally occurring mineral deposits and organic mineral (plant wastes compost manure) it has more positive results than chemical fertilizers.

Chemical fertilizers are often petroleum-based and are used mostly modern agricultural settings. They are highly effective and short term. These are frequently overused so it may cause harm to plants and the environment by reducing the efficiency of plant resistance. Beneficial soil microorganisms die when synthetic fertilizers are applied, plus these fertilizers often enter waterways contributing to water pollution and harmful to the aquatic organisms. In most cases, an all-purpose, 5-5-5 fertilizer will provide the nutrients all plants need for healthy growth. The ratio may be different to different fertilizer it is the ratio of N-P-K. Either increasing or decreasing the ratio may affects the plant. Fertilization occasionally decreases disease resistance of plants, because the plant has the ability to prevent fungus or bacterial infection naturally but the use of these chemicals lead to artificially increase the production ability for a short time. This is the reason behind the leading of diseases in plants. Suppose the too much nitrogen often causes more severe disease. For example, rice stem rot, verticillium and fusarium wilt of cotton and other plants, powdery mildew on small grains, cereal rusts, fire blight of apples and pears, and boll rot of cotton may be more damaging if you apply too much nitrogen. People exposed to high levels of endosulfan, either intentionally or in contaminated food, or who were exposed during spraying fields, suffered tremors and seizures and some

died. The same types of effects have been observed in animals or fishes exposed directly or indirectly to high levels of endosulfan.

The Farmers may or may not know all the types of diseases and its causes. So this system provide and ability to help the farmers to upload the clear image to the website and the AI help to determine what disease is that and its causes

REFERENCES

- https://www.sciencedaily.com/releases/2018/07/180726162736.htm
- https://bsppjournals.onlinelibrary.wiley.com/doi/10.1111/ppa.12014
- https://www.gardeners.com/how-to/fertilizer-ratios/5161.html
- https://www.gardeners.com/how-to/fertilizer-faqs/9590.html
- http://extension.msstate.edu/publications/information-sheets/the-plant-doctor-plant-disease-and-fertilization