

Biofertilizers in agricultural biotechnology

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Biofertilizers are an important aspect of agricultural biotechnology that can be used to improve crop yields, reduce the use of chemical fertilizers, and improve soil health. There are a lot of advantages of using biofertilizers, such as their ability to improve soil fertility, reduce the need for chemical fertilizers, and increase crop yields. Additionally, the challenges associated with their use, such as the need for proper management and the potential for environmental contamination. Nowadays presents 6 types of biofertilizers in the global market, such as:

1. Azotobacter: Azotobacter is a type of nitrogen-fixing bacteria that can be used as a biofertilizer to supply nitrogen to crops.

2. Rhizobium: Rhizobium is a type of bacteria that forms a symbiotic relationship with legume plants and helps them to fix nitrogen from the atmosphere.

3. Azospirillum: Azospirillum is a type of nitrogen-fixing bacteria that can be used as a biofertilizer to supply nitrogen to crops.

4. Phosphate solubilizing bacteria: Phosphate solubilizing bacteria can help to make phosphorus more available to plants and can be used as a biofertilizer.

5. Mycorrhizal fungi: Mycorrhizal fungi form a symbiotic relationship with plants and help them to absorb nutrients from the soil.

6. Biochar: Biochar is a type of charcoal that can be used as a soil amendment to improve soil fertility and increase crop yields.

Finally, the potential of usage of biofertilizers in the future is increasing, including their potential applications in precision agriculture and the development of new varieties of crops that are more resistant to pests and disease.