

Frequently Asked Questions about Microbial Fertilisers

1. What are the effective components in microbial fertiliser?

The main components are beneficial microorganisms that promote crop growth, prevent diseases, activate soil nutrients, and improve soil quality. These microorganisms, also known as effective bacteria, primarily include spore-forming bacteria such as *Bacillus subtilis*, amylase-producing bacteria, large spore-forming bacteria, and gelatinous spore-forming bacteria.

2. What is the mechanism of promotional effect by microbial fertiliser?

Firstly, these effective bacteria secrete growth-promoting substances like indole acetic acid, gibberellin, and cytokinins, increasing the crop's root development by 30% to 50%. This results in robust plants with strong resistance, promoting early flowering and fruiting.

Secondly, the bacteria release low-molecular-weight organic acids like oxalic acid and acetic acid, activating the soil's slow-release and difficult-to-release nutrients, enhancing crop growth, and increasing crop biomass by more than 10%.

Thirdly, the bacteria produce alkaloids such as solanine, piperidine, and pyridine, acting as antibacterial substances that can kill pathogens. Simultaneously, they degrade self-toxic substances of pathogens, such as solasodine and vanillic acid, preventing and controlling soil-borne diseases.

Fourthly, the metabolic activities of effective bacteria degrade toxic substances such as organophosphorus pesticides and polycyclic aromatic hydrocarbons, deactivate pollutants, improve micro-aggregates in the soil, nurture soil ecology, and enhance soil fertility and nutrient-supplying capacity.

3. What are the main outcomes of microbial fertiliser?

- Promotes increased root mass and enhances stress resistance.
- Results in vigorous and green plants, promoting growth and increasing yield.
- Stimulates early flowering and fruiting, improving crop quality.
- Effectively prevents and controls soil-borne diseases and soil pollution.

4. What are the usage and dosage of microbial fertiliser?

Apply not less than 75 liters of liquid formulation or 75 kilograms of granular formulation per hectare as base or topdressing fertilizer.

5. What are the precautions of microbial fertiliser?

- Do not mix with fungicides.
- Avoid use with high-nutrient-content chemical fertilizers.
- Water promptly after application and avoid exposure to direct sunlight.