

Biotechnology plays a vital role in reducing the harmful effects of fertilizers, helping to improve sustainability in agriculture and minimize environmental damage. In conclusion, biotechnology provides promising solutions for addressing the environmental and health risks of fertilizer use while promoting sustainable agricultural practices. Microbial Inoculants: Development of beneficial microorganisms, like nitrogen-fixing bacteria, reduces the need for synthetic fertilizers and decreases fertilizer runoff and soil degradation. 2.3.4