

# An Overview on Microorganisms Contribute in Increasing Soil Fertility

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## Abstract

We mostly know microorganisms by their negative impact that they are disease causing agents. But when we turn towards their positive impact that they also have an important impact on agriculture production by helping plants in their growth. Microorganisms have been an integral part of soil since ever earth formed. They have the capability to turn soil into waste land and waste land into productive soil. They increase soil fertility by incorporating air, minerals and nitrogenous compounds. They contribute in increasing plant growth by providing essential elements, minerals that plants cannot utilize by their Owen. Microorganisms decompose organic matter to simpler form that can be easily uptake by plants.

**Keywords:** Microorganisms; Bacteria; Fertility; Mineralization

## Introduction

The physical and chemical composition of soil varies throughout the earth [1,2]. A hand full of soil contains millions of microorganisms which function in increasing soil fertility and plant growth [3]. Usually, people think that microorganisms are agents of disease, however, they have direct role in increasing soil fertility. These microbes help in the decomposition of organic matter. Different microbes decompose different organic matter [4]. Due to their role in improving soil fertility has become major investigation subject during the recent past. Many nutrients develop in soil due to the biological transformation by the action of microorganism [5]. They effect soil functioning by making it fertile. The soil which contain high number of microorganisms considered as most fertile soil. These microscopic creatures ensure the permanent existence of nutrients in soil. Successful agriculture is the result of management of these nutrients in soil [6].

In agro ecosystem, nutrient status in soil is determined by identification and quality of microorganisms [7]. This helps agriculturist to maintain these nutrients in soil to get greater yield of crops. The number of species of microorganism directly depends on the physical and chemical nature of soil [8]. Different studies have shown that microbial community structure is determined by environmental factors and chemical properties of soil [9-12]. Soil nutrients influenced due to land and soil management which results in process such as erosion, oxidation, leaching and mineralization.

Due to these processes, the activity of soil microorganism may increase or decrease which results in affecting soil fertility [13,14]. Both bacteria and fungi with organic matter may increase soil fertility and the production of soil [15-18].

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