

## 1.6 Comparative Mineral Composition Studies

Research contrasting the mineral content of non-organic and organic bananas has produced a range of findings, which reflects the complexity of farming methods and how they affect nutrient profiles. According to research, organic farming's natural soil management techniques frequently boost banana crops. These methods, which include applying compost and green manure, can improve the microbial variety and health of the soil, which may result in increased fruit concentrations of particular nutrients (Jones & Brown, 2019). For instance, a better-balanced nutritional profile in the soil may result from organic farming's decreased use of synthetic chemicals, and this may be reflected in the mineral content of the bananas.

According to Lombardo and Pandino (2017), when compared to their conventionally cultivated equivalents, organic vegetables including bananas generally have higher levels of several minerals. The improved soil conditions brought forth by organic farming methods are responsible for this rise. But not every produce will benefit equally from the findings. Variations in soil quality, weather patterns, and particular farming practices can all have an impact on variations in mineral content (Lombardo & Pandino, 2017).

Despite these realisations, the data does not consistently support the claim that organic bananas offer better nutrients than non-organic ones. According to certain research, there may not be much of a difference in the mineral content of conventional and organic bananas. This diversity emphasises how crucial it is to take into account a range of aspects when assessing the nutritional benefits of produce cultivated organically, including crop variety, environmental factors, and soil management techniques (Jones & Brown, 2019; Lombardo & Pandino, 2017).

Ultimately, a variety of factors other than agricultural practices alone influence the overall impact on banana mineral content, even if organic farming practices can occasionally lead to improved nutrient profiles.