IMPACT OF IRRIGATION WATER ON SOIL BACTERIAL COMMUNITIES

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Abstract

Soil microbial communities in agricultural ecosystems are affected by soil type, climate conditions, plant species, and crop management (i.e. soil tillage, fertilizers, plant protection products, irrigation management). To highlight the influence of irrigation water on soil bacterial communities in maize (*Zea mays* L.), soil sample were taken in four growth stages of maize crop, between May and August 2022. The dynamics of bacterial community during the vegetation period show an increase from May to July and a slight decrease until the end of August. Our result suggest that irrigation water has a positive impact on bacterial communities in soil, being an additional reason to invest and use irrigation systems in agriculture.

Key words: soil microbiota, maize, soil bacteria communities