

RNA-seq analysis in plant–fungus interactions

ABSTRACT

Many fungi are pathogens that infect important food and plantation crops, reducing both yield and quality of food products. Understanding plant–fungus interactions is crucial as knowledge in this area is required to formulate sustainable strategies to improve plant health and crop productivity. High-throughput RNA-sequencing (RNA-seq) enables researchers to gain insights of the mixed and multispecies transcriptomes in plant–fungus interactions. Interpretation of huge data generated by RNA-seq has led to new insights in this area, facilitating a system approach in unraveling interactions between plant hosts and fungal pathogens. In this review, the application and challenges of RNA-seq analysis in plant–fungus interactions will be discussed.

Keyword: Challenges; Functional genomics; Multispecies transcriptomics; Plant–fungus interactions RNA-seq